



# REPORT

**Improving HIV Surveillance and Prevention  
Intervention Efforts among Hispanic  
or Latino Migrant Communities in  
United States-Mexico Border States:  
Arizona, California, New Mexico and Texas**

**January 2014**

# Table of Contents

- Executive Summary .....iv**
- Part A: Improving HIV Surveillance ..... 1**
  - Introduction..... 2**
  - Background ..... 2**
    - United States–Mexico Border..... 2
    - Who is a migrant..... 2
    - Hispanics or Latinos in the United States ..... 3
    - HIV infection among Hispanics or Latinos in the United States ..... 3
    - CDC’s Portfolio of HIV Surveillance Activities..... 4
      - National HIV Surveillance System (NHSS) ..... 4
        - Variables within NHSS Useful to Characterize HIV among Hispanic or Latino Migrants ..... 4
      - Medical Monitoring Project (MMP)..... 6
      - National HIV Behavioral Surveillance System (NHBS) ..... 6
      - Inventory of variables related to migration ..... 7
  - Methods..... 8**
  - Summary of Key Findings on Improving Surveillance of HIV Infection  
among Hispanic or Latino Migrant Population ..... 8**
  - Recommendations ..... 12**
  - Contributors ..... 13**
  - References.....14**
  - Other Documents and References Reviewed .....16**
  - Figures and Tables.....18**
  - Appendices ..... 21**
    - Appendix 1 .....21
      - References ..... 23
      - Additional Reading..... 24
    - Appendix 2..... 25
    - Appendix 3.....28
- Part B: Improving HIV Prevention Intervention Efforts..... 31**
  - Introduction..... 32**
  - Background ..... 32**
    - The Epidemiology of HIV among Hispanics or Latinos in the United States ..... 32
    - HIV Risk Behavior in Migrant Populations ..... 32
  - Methods..... 33**
    - Results from Literature Review ..... 33
    - Current Prevention Efforts for Hispanics or Latinos ..... 35

<b>Suggestions</b> .....	<b>35</b>
Suggestions to improve HIV prevention among Hispanic or Latino migrant populations along the United States/Mexico border follow. ....	35
<b>Contributors</b> .....	<b>36</b>
<b>References</b> .....	<b>36</b>
<b>Appendices</b> .....	<b>38</b>
Appendix 1 .....	38
HIV Prevention Programs .....	38
Capacity Building Assistance.....	39
Diffusion of Effective Behavioral Interventions (DEBIs) that support High Impact Prevention.....	40
HIV Prevention Communication .....	40
Prevention Research Branch .....	41
Epidemiology Branch .....	41

## Executive Summary

The National HIV/AIDS Strategy (NHAS) aims to reduce the number of people who become infected with HIV, increase access to care and optimize health outcomes for people living with HIV, and reduce HIV-related health disparities. The NHAS calls for intensifying culturally appropriate HIV prevention efforts for Hispanics or Latinos due to the increased burden of HIV in this sub-population. The NHAS implementation strategy requires the Centers for Disease Control and Prevention (CDC) to provide suggestions for improving HIV surveillance and prevention intervention efforts among Hispanic or Latino migrant communities in the U.S. states that border Mexico: Arizona, California, New Mexico and Texas (hereafter referred to as border states). This document addresses both HIV surveillance and prevention and is presented in 2 parts: Part A is entitled “Improving HIV Surveillance” and Part B is entitled “Improving HIV Prevention Intervention Efforts.”

To address HIV surveillance, CDC conducted an initial assessment that included a review of published literature, reports, policies and procedures related to the epidemiology of HIV among the Hispanic or Latino migrant populations. A second phase included an inventory of variables collected by the National HIV Surveillance System (NHSS), the National HIV Behavioral Surveillance System (NHBS) and the Medical Monitoring Project (MMP) to characterize HIV among the Hispanic or Latino migrant populations. In addition, completeness of relevant data reported to each system was assessed at the national and state level as appropriate. Finally, to assess HIV surveillance practices, CDC consulted with experts, and participated in workshops and conference calls with border states and city health departments, federal partners, Mexico Secretariat of Health and other federal agencies.

A literature review of existing models, practices, and HIV prevention interventions for Hispanic or Latino migrant communities was conducted to inform the HIV prevention suggestions in this report. The final report and suggestions were shared with State AIDS Directors for the border states to solicit their review and feedback.

Through these activities, seven areas for improvement in HIV case surveillance standard practices were noted:

1. Identify and enhance collaboration with health care providers and community-based organizations serving Hispanic or Latino migrants and encourage ongoing HIV case reporting to the appropriate local or state health departments.
2. Improve the quality and completeness of HIV surveillance data that are necessary to measure NHAS outcomes among Hispanic or Latino migrants (i.e., demographic, behavioral, clinical, laboratory-related variables) by working with health care providers that serve Hispanic or Latino migrants to enhance the collection of HIV case data.
3. Adopt the Department of Homeland Security definition of migrant (i.e., a person who leaves his/her country of origin to seek residence in another country) for HIV surveillance purposes and operationalize the migrant definition by using the U.S. Census bureau approach which uses the term “foreign-born” persons (i.e., anyone residing in the United States who is not a U.S. citizen at birth).
4. Use the variable ‘country of birth’ collected by the NHSS on the Adult Confidential Case Report form and the guidance provided in the foreign-born basic analysis tool kit available

- from CDC to present data on foreign-born Hispanics or Latinos as a proxy for migrants.
5. Conduct further analysis using existing data from HIV case surveillance and other surveillance systems to characterize HIV infection among foreign-born Hispanics or Latinos.
  6. Provide HIV prevention programs with the necessary information to guide prevention programs targeting the Hispanic or Latino migrant communities (e.g., geographical and socio-demographic information, linkage and continuity of HIV care, areas with high concentration of foreign-born Hispanics or Latinos, comorbidities).
  7. Report routinely summary information on HIV among foreign-born Hispanics or Latinos. This may include disseminating jointly or coordinated reports with Mexican border states in accordance with state laws and regulations.

Based on results from the literature review and feedback from AIDS Directors, the following suggestions for HIV prevention intervention efforts are offered:

1. Identify the specific structural, environmental, cultural, and sexual contexts along the United States-Mexico border region that facilitate HIV risk behaviors among migrants in order to inform the development of prevention interventions.
2. Identify the most efficacious and cost-effective HIV prevention strategies for the considerable diversity among migrants, especially those at highest risk, such as gay and bisexual men, injection drug users, and migrants of varying socioeconomic and educational backgrounds and transnational experiences.

3. Implement and evaluate HIV prevention interventions that are culturally and linguistically appropriate, address issues of literacy and stigmatization and include strategies for reducing the social and structural barriers to accessing health care services and information.
4. Enhance collaboration with and between health care providers, consulates of Mexico and other countries in Central and South America, local or state health departments, community based organizations (CBO), faith-based organizations (FBO), immigrant rights organizations, and AIDS services organizations (ASO) that provide services to Hispanic or Latino migrant populations living in border states.
5. Identify points in the HIV care continuum to focus prevention efforts that will achieve the greatest impact in reducing new HIV infections among Hispanic or Latino migrant populations in border states.

The suggestions provided in this report are offered to help improve HIV surveillance and prevention intervention efforts among Hispanic and Latino migrant communities in border states. Improvements in standard practices for HIV case surveillance efforts will provide data that can better characterize the migrant populations and, in turn, be utilized to develop effective, scalable, and evidence-based approaches to reduce HIV infections in border states.



Part A:

# Improving HIV Surveillance



## Introduction

The National HIV/AIDS Strategy (NHAS)<sup>1</sup> has three primary goals to respond to the HIV epidemic in the United States and dependent areas during 2011-2015: 1) reducing the number of people who become infected with HIV; 2) increasing access to care and optimizing health outcomes for people living with HIV; and 3) reducing HIV-related health disparities. The NHAS calls for intensifying HIV prevention efforts among Hispanics or Latinos, as they represent communities where HIV is heavily concentrated. The NHAS also makes it clear that HIV prevention efforts that target Hispanic or Latino communities must be culturally appropriate and available to acculturated and non-acculturated Hispanic or Latino populations. The NHAS implementation strategy requires the Centers for Disease Control and Prevention (CDC) to release a report on suggestions for improving HIV surveillance and prevention intervention efforts among Hispanic or Latino migrant communities in the U.S. states (Arizona, California, New Mexico, and Texas) that border Mexico (hereafter referred to as border states). The intention of this report is to provide recommendations to improve HIV surveillance and summarize the activities and findings that guided their development.

## Background

### *United States–Mexico Border*

Four states share the international border with Mexico: Arizona, California, New Mexico and Texas. Within those states, the United States-Mexico border region was defined by the La Paz Agreement as the area of land 100 kilometers (approximately 62.5 miles) on either side of the international boundary (Figure 1). The border region stretches approximately 2,000 miles, from the southern tip of Texas to California and comprises 80 municipalities (municipios) in 6

Mexican states and 48 counties in 4 U.S. states<sup>2</sup>. The region has approximately 12 million people<sup>3</sup>, 90% of whom reside in 14 “sister cities,” which are metropolitan areas in both countries<sup>4</sup>. These urban areas have experienced rapid growth, exceeding United States estimates of average growth rates for each country<sup>5</sup>. Even though characteristics of the population vary in the different counties in the region, some commonalities include living below the poverty level, being less than 25 years of age, relatively low educational attainment among those 25 years and older (10 - 30% had less than high school education) and high rates of being uninsured<sup>6</sup>. Moreover, increased trade and high mobility, with 350 million northbound border crossings per year, makes this region the most transited border of the world. The high cross border mobility and trade, and the social, economic and health disparities between the United States and Mexico contribute to the risk of disease transmission in the region<sup>7</sup>.

### *Who is a migrant?*

There is no universally accepted definition for migrant (See Appendix 1). Countries and agencies use their own criteria to define migrants based on their legislation and policies<sup>8,9</sup>. The United States Department of Homeland Security (DHS), defines “migrant” as a person who leaves his/her country of origin to seek residence in another country, and “immigrant” as any alien in the United States, except one legally admitted under specific nonimmigrant categories<sup>10</sup>. The term “migrant” is also frequently used as a synonym of “migrant farmworker.” Even though many farmworkers in the United States came from abroad, they represent a small proportion of all foreigners living in the United States. The different definitions of farmworker or agricultural worker used by U.S. agencies only make reference to an occupation and to work-related mobility within the United States, not country of origin or immigration status (See Appendix 1)<sup>11</sup>.

The U.S. Census Bureau uses the term foreign-born population to refer to anyone residing in the U.S. who is not a U.S. citizen at birth (i.e., U.S. citizen at birth is anyone born in the United States, Puerto Rico or a U.S. dependency or those born abroad of at least one U.S. citizen parent); this term is frequently used as a proxy for international migrants living in the country. In 2010, the U.S. Census Bureau estimated that 13% of the total population living in the United States was foreign-born residents (39.9 million)<sup>12</sup>. According to the DHS, each year, millions of foreigners are newly admitted to the United States as permanent residents (476,000), temporary workers and their families (2.8 million), international students (2.1 million) or as persons in other temporary visa categories (1.2 million)<sup>13</sup>. In 2010, there were an estimated 11.2 million unauthorized immigrants<sup>14</sup> who are more likely to remain hidden from government officials and may not have been included in the census statistics. Of all unauthorized immigrants living in the United States in 2009, 63% entered before 2000, and 62% were from Mexico<sup>14,15</sup>.

### ***Hispanics or Latinos in the United States***

The term Hispanic or Latino is used to identify U.S. residents of Mexican, Cuban, Puerto Rican, Central American, South American and other Spanish-speaking country origins<sup>12</sup>. In 2010, Hispanics or Latinos in the United States represented the largest and fastest growing minority population, accounting for 16% of the total population (50.7 million), which represented a 43% increase in population since 2000<sup>12</sup>. According to census population projections, the Hispanic or Latino population will constitute 30% of the U.S. population by 2050<sup>12</sup>. Compared to the nation's Hispanic or Latino population, border states have higher percentages of Hispanic or Latino residents (Figure 2) with California and Texas having the largest number of Hispanics or

Latinos (14 and 9.5 million, respectively) (Table 3)<sup>12,5</sup>. Of all Hispanics or Latinos in the country, 31.9 million (63%) are native born and 18.8 million (37%) are foreign born, with California having the highest concentration of foreign-born Hispanics or Latinos (Table 1 and Figure 2). In border states, most foreign-born Hispanics or Latinos were from Mexico (79%-91%; total 7.4 million pop.) (Table 2).

### ***HIV infection among Hispanics or Latinos in the United States***

Hispanics or Latinos in the United States are disproportionately affected by HIV infection<sup>16</sup>. In 2010, Hispanics or Latinos represented 21% (9,800) of the estimated 47,500 new HIV infections in the United States; with a rate that was more than three times that of non-Hispanic whites (27.5 vs. 8.7 per 100,000 population). Most newly infected Hispanics or Latinos were men (87%, 8,500). Among men, 79% (6,700) of new infections were attributed to sexual contact with other men (MSM) and, of those, 28% (1,900) were less than 24 years of age. Women accounted for 14% (1,400) of new infections; with a rate of infection more than four times that of white women (8 vs. 1.9 per 100,000 population)<sup>17</sup>. In 2011, Hispanics or Latinos accounted for 21% of the 49,273 new HIV diagnoses in the United States. Among Hispanics or Latinos diagnosed with HIV infection and known birthplace, most were born in the United States, followed by Mexico and Puerto Rico<sup>16</sup>. The annual number of HIV diagnoses have increased among Mexican-born and Central American-born males and females but decreased among U.S.-born Hispanic or Latino women<sup>18</sup>. Findings indicate a shorter interval from HIV diagnosis to HIV disease Stage 3 (AIDS) (i.e., diagnosis of HIV occurs later during the course of infection) for Mexican-born Hispanics or Latinos than

for U.S.-born Hispanics or Latinos<sup>18</sup>. During 2003 - 2006, 4,279 persons were diagnosed with HIV infection in the U.S. counties along the United States-Mexico border region. Overall, 47% of persons diagnosed with HIV were Hispanic or Latino, 39% non-Hispanic white, and 10% were non-Hispanic black. During this period, HIV diagnoses increased 7.8% per year; this increase occurred among males, and particularly among MSM; among females, HIV diagnoses remained stable<sup>19</sup>.

### **CDC's Portfolio of HIV Surveillance Activities**

Surveillance is the ongoing, systematic collection, analysis, interpretation, and dissemination of data regarding a health-related event<sup>20</sup>. CDC's HIV surveillance is a nationwide system that collects information on diagnoses of HIV infection, stage of disease (AIDS) and demographic characteristics and behavioral risk factors among persons diagnosed with or at high risk for HIV infection to track the trends in HIV, assists in public health policy development, and evaluates the effectiveness of HIV prevention and intervention programs. HIV surveillance activities include the National HIV Surveillance System (NHSS), the Medical Monitoring Project (MMP) and the National HIV Behavioral Surveillance System (NHBS) (<http://www.cdc.gov/hiv/topics/surveillance/index.htm>).

### **National HIV Surveillance System (NHSS)**

Diagnosis of HIV infection is notifiable in all 50 states, the District of Columbia (DC), and six U.S. dependent areas. CDC funds and assists state and local health departments to collect information on persons diagnosed with HIV infection based on state disease reporting regulations. Health departments report HIV surveillance data to CDC without personal identifiers in accordance with the Data Security and Confidentiality Guidelines for HIV, Viral Hepatitis, Sexually Transmitted Disease, and

Tuberculosis Programs<sup>21</sup>. The NHSS collects data on persons who have been diagnosed with HIV infection while residing in the United States regardless of citizenship. Data are collected using a uniform case definition and include the person's basic demographic characteristics, country of birth, place of residence at the time of diagnosis regardless of where exposure may have occurred, risk factors for HIV infection, and numerous sentinel events such as date of initial diagnosis of HIV infection, first and subsequent CD4 T-lymphocyte count and plasma load of viral RNA, immunologic or clinical diagnosis of stage 3 HIV infection (AIDS), and death. As of April 2008, all 50 states, DC and six dependent areas had adopted the same confidential name-based reporting method to collect HIV surveillance data. NHSS also includes the collection of supplemental data in states funded for HIV Incidence Surveillance (HIS) and HIV nucleotide sequences in states funded for Molecular HIV Surveillance (MHS). In addition, surveillance jurisdictions have the option of conducting Perinatal HIV Exposure Reporting (PHER), and Geocoding and Data Linkage.

### **Variables within NHSS Useful to Characterize HIV among Hispanic or Latino Migrants:**

**Race and ethnicity** – Race and ethnicity are required for reporting a case of HIV infection to the CDC. Race and ethnicity are categorized and defined in accordance with standards mandated by the Office of Management and Budget. The term Hispanic or Latino is used to identify U.S. residents of Mexican, Cuban, Puerto Rican, Central American, South American and other Spanish-speaking country origins<sup>12</sup>. In practice, the U.S. Census Bureau relies on self-reports to determine ethnicity—someone is Hispanic or Latino if they self-identify as Hispanic or Latino. However, the terms are not widely used

outside the U.S. and recent migrants may not be familiar with them. In addition, the terms may also have different meanings. Findings from a nationwide survey of Hispanic or Latino adults indicated that a majority most often identify themselves by their family's country of origin (e.g., Colombian, Mexican) and not as Hispanic or Latino<sup>22</sup>. This may be a source of misidentification as Hispanic or Latino. HIV case surveillance obtains information pertaining to the person's race and ethnicity through review of medical charts by HIV surveillance personnel or reported to the local or state HIV surveillance program by the person's health care provider as part of case reporting. The extent to which the collection of race and ethnicity is facilitated by patient self-identification or identification by an observer (e.g., a nurse or physician) is unknown<sup>23</sup>.

**Place of birth** – Migration information on persons diagnosed with HIV is not collected by the NHSS. The system collects demographic characteristics of persons diagnosed with HIV including place of birth. NHSS uses the variable “country of birth” to collect birth place. This variable is defined as U.S. (i.e., persons born in the 50 states and DC) and other countries/U.S. Dependencies. For persons born outside of the 50 states and DC, HIV surveillance programs should specify the U.S. dependency (i.e., American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, the Republic of Palau, and the U.S. Virgin Islands) or country. Place of birth is determined by health department personnel conducting active surveillance and reviewing medical records of persons being treated for HIV infection. CDC recommends obtaining complete information about country of birth as part of HIV case reporting. These data are essential for monitoring, characterizing and comparing the burden of HIV by birthplace and for identifying the unique health challenges faced

by foreign-born persons. However, the variable country of birth is not required for reporting a case of HIV infection to CDC. This variable is commonly used to classify persons diagnosed with HIV infection by place of birth. CDC presents HIV surveillance data by place of birth among Hispanics or Latinos in groups based on the place of birth such as Central America, Cuba, Mexico, Puerto Rico, South America, United States (includes 50 states and DC), other and unknown. In 2011, 20% of reported cases had missing country of birth information<sup>16</sup>. Of HIV data reported nationally, foreign-born Hispanics or Latinos represent approximately 57.8% of Hispanics or Latinos diagnosed with HIV infection between 2007 through 2010<sup>24</sup>.

CDC collects HIV case surveillance information for foreign-born persons residing in the United States but does not collect HIV case surveillance information or forward case reports to other countries for persons whose country of residence is not the United States. The CDC Technical Guidance for HIV Surveillance Programs provides instructions on determining residency of persons diagnosed with HIV. To avoid under, or over-reporting of cases of foreign citizens, additional guidance can be found in the Council of State and Territorial Epidemiologist (CSTE) position statement 04-IS-11 - Revised Guidelines for Determining Residency for Disease Notification<sup>25</sup>.

**Residency at diagnosis** - Place of residence at the time of diagnosis for foreign citizens who have established a household or are part of an established household in the United States (including those who are in the United States for work or study) is assigned to HIV cases using the address of the individual's usual residence in the United States. Persons whose country of residence is not the United States or U.S. dependent areas

and territories are not reported to CDC; HIV case information of foreign-born persons is not forwarded to their countries of residency by CDC. States in the border region have developed local agreements to exchange epidemiologic information, (e.g., such as HIV comorbidities) as indicated in the U.S.-Mexico Guidelines for Coordination on Epidemiologic events<sup>26</sup>.

**Migrants** - The data collected through the NHSS do not allow the identification of migrants (other than foreign-born persons) and allow very limited assessment of migration patterns, the effects of migration on foreign-born persons diagnosed with HIV infection and the impact of migration on the burden of HIV in the United States. Changes to the immigration health assessment policy, including no longer considering HIV status as a possible exclusory condition for entry, may increase the need to collect related information to characterize HIV infection among migrants<sup>27</sup>.

### **Medical Monitoring Project (MMP)**

MMP is a national population-based surveillance system that collects information on clinical outcomes and behaviors of HIV-infected persons receiving care in the United States. Collection of data from interviews with HIV-infected patients provides information on the current behaviors that may facilitate HIV transmission; patients' access to, use of, and barriers to HIV-related secondary prevention services; utilization of HIV-related medical services; and adherence to drug regimens. Using data abstracted from medical records, MMP also provides information on clinical conditions that occur in HIV-infected persons as a result of their disease or the medications they take, as well as the HIV care and support services they receive and the quality of these services. MMP collects some proxy measures on migration and mobility and has an optional acculturation scale that measures the

level of linguistic and cultural assimilation by those who are foreign born. This scale is optional for use by MMP project areas and is not used in all areas. In addition, participating MMP project areas have the option of including a limited number of local questions of their choice. Persons are eligible to participate in MMP if they are HIV infected, at least 18 years of age, and have received HIV medical care (defined as any visit to a known provider of HIV medical care for medical care or prescription of medications) during the January – April data collection period.

In 2011, MMP was conducted in a total of 23 project areas (16 states, Puerto Rico, and 6 separately funded counties/cities within funded states) including the state of California (with separate data available from Los Angeles county and the city of San Francisco), and the state of Texas (with separate data available from the city of Houston); Arizona and New Mexico are not included in MMP. Data from the 2007 MMP cycle indicated that among the 3,643 participants, 699 (19%) were Hispanic or Latino and 376 (10%) were foreign-born. In the 2009 MMP cycle, 853 (19%) of the 4,035 participants were Hispanic or Latino and 490 (13%) were foreign-born.

### **National HIV Behavioral Surveillance System**

**(NHBS)** – NHBS is CDC's most comprehensive system for conducting serial cross-sectional behavioral surveillance among persons at highest risk for HIV infection in the United States. CDC funds state and directly funded local and county health departments to conduct NHBS in rotating annual cycles among three populations: MSM, injection drug users (IDU), and heterosexuals at high risk for HIV infection (HET). NHBS is conducted in 20 metropolitan statistical areas (MSA) selected from among the MSAs with the highest burden of HIV infection stage 3 (AIDS). Basic eligibility criteria for all NHBS cycles

require all participants to live in the participating MSA; be 18 years of age or older; not have already participated in the current NHBS cycle; be able to complete the interview in English or Spanish; and provide oral consent to participate. All NHBS project areas use a standardized, anonymous questionnaire which is administered in English or Spanish by trained interviewers using handheld computers. The questionnaire collects information about behavioral risk factors for HIV, HIV testing and exposure to and use of prevention services, and includes some proxy measures for migration and mobility. Project areas have the option to include a limited number of local questions. Participants are also offered an anonymous HIV test.

In NHBS-MSM cycles, men are recruited from randomly selected venues which MSM frequent. A target sample of 500 men who have had sex with another man in the past 12 months is recruited from each participating MSA during the NHBS-MSM cycles. In NHBS-IDU cycles, participants are recruited using a peer-referral sampling method. A target sample of 500 individuals who have injected drugs in the past 12 months is recruited from each participating MSA during the NHBS-IDU cycles. In NHBS-HET cycles, males and females between the ages of 18 and 60 years are recruited using a peer-referral sampling method. A target sample of 450 low income or low education individuals who have had sex with a partner of the opposite sex in the past 12 months is recruited from each participating MSA during the NHBS-HET cycles.

NHBS includes five MSAs in border states including Los Angeles, San Diego, and San Francisco in California, and Dallas and Houston in Texas. No MSAs in Arizona or New Mexico are included as part of NHBS. In 2008, 8,169 men who had had sex with another man in the

past 12 months completed the NHBS interview and an HIV test during the MSM data collection cycle. Of those, Hispanics or Latinos comprised 25% (2,019); foreign-born Hispanics or Latinos comprised 12.7% (1,037). In 2009, 10,073 persons who had injected drugs in the past 12 months completed the NHBS interview and an HIV test during the IDU data collection cycle. Of those, Hispanics or Latinos comprised 22% (2,169); foreign-born Hispanics or Latinos comprised 10% (997). In 2010, 8,465 individuals who had had sex with an opposite-sex partner in the past 12 months completed the NHBS interview and an HIV test during the HET data collection cycle. Of those, Hispanics or Latinos comprised 21% (1,779); foreign-born Hispanics or Latinos comprised 12% (Table 4). There is only one MSA in the border region (San Diego) where NHBS is conducted.

#### ***Inventory of variables related to migration***

CDC conducted an inventory of the variables collected by NHSS, MMP, and NHBS to characterize HIV among the Hispanic or Latino migrant populations. Variables identified included social and demographic characteristics, acculturation scale and HIV risk factor information. An inventory of variables of interest and proxy indicators for migration and mobility within the HIV case and behavioral surveillance systems indicated that collectively, the systems identify most of the variables of interest for HIV transmission and proxy indicators for migration (e.g., foreign birth); however, mobility and migration history information are not collected by any system (See Appendix 2).

## Methods

To produce this report, CDC 1) conducted a review of published literature, reports, policies and procedures related to HIV surveillance/epidemiology among Hispanic or Latino migrant population; 2) explored suggestions for improving surveillance with national experts, federal partners and stakeholders, and 3) examined HIV surveillance practices in border states.

CDC explored suggestions for improving surveillance with a series of experts in HIV surveillance including representatives from HIV surveillance programs in border states and from the Binational Infectious Disease Surveillance (BIDS) programs from the United States and Mexico, experts in migrant health from the U.S.-Mexico Unit within the Division of Global Migration and Quarantine at CDC, representatives of the Mexico Secretariat of Health–General Directorate of Epidemiology, representatives of United States Immigration and Customs Enforcement (ICE), Enforcement and Removal Operations, ICE Health Service Corps (IHSC) and Health Resources and Services Administration (HRSA).

To examine current HIV surveillance practices, CDC assessed HIV surveillance practices for Hispanic or Latino migrant communities in border states as part of the monthly technical assistance calls between CDC epidemiologists and HIV surveillance coordinators. Areas of assessment included description of current practices to conduct HIV surveillance among Hispanic or Latino migrants, challenges and barriers as well as possible actions to overcome challenges and barriers. In addition, during the 2011 HIV Surveillance Workshop, a round table discussion was conducted with HIV case surveillance, MMP, and NHBS coordinators from border states and United States dependencies in the Caribbean to: 1) increase CDC's

understanding of existing data collection processes, analysis, and dissemination practices; 2) identify barriers and challenges to conducting HIV surveillance among migrant communities in border states; and 3) discuss viable solutions to existing limitations. HIV surveillance staff from the four border states (Arizona, California, New Mexico and Texas) and funded cities within these states that have separately funded HIV surveillance programs (i.e., Los Angeles, San Francisco and Houston) were included in the discussions and exchanges.

## Summary of Key Findings on Improving Surveillance of HIV Infection among Hispanic or Latino Migrant Population

The literature review, group discussions and consultation with experts highlighted that there is no standardized definition of migrant population in the HIV surveillance system. The Hispanic or Latino migrant population is a heterogeneous group (e.g., may include migrant farm workers, persons visiting, persons who work/live and receive care in Mexico and the United States, transient migrants, established residents, Hispanic or Latino foreign detainees pending removal from the United States, indigenous population, etc.) and the lack of a common definition for this subpopulation represents a challenge when trying to characterize the burden of HIV. Therefore, it is important to adopt a definition for “migrant” for surveillance purposes and define the variables for analysis that may allow relating the data to MMP and NHBS as well as other disease surveillance systems.

While the practice of using foreign-born as a proxy to identify “migrants” provides the most basic information to characterize migrants, it does not describe length of time in the United

States which is known to affect HIV risk behaviors, HIV infection and health outcomes. Moreover, recent changes to the immigration health assessment policy, including no longer considering HIV status as a possible exclusory condition for entry, may increase the need to collect related information to characterize HIV infection among migrants, as the number of foreign-born HIV infected persons residing in the United States may increase<sup>27</sup>. In addition, the NHSS does not collect information regarding history of migration (e.g., year of entry into the United States if foreign-born), mobility patterns (e.g., time in current residence, last time traveling to country of origin if foreign-born), intrastate and interstate migration, citizenship or legal status (e.g., possession of a green card), occupation, ability to communicate in English (e.g., whether English is an individual's first language or the language spoken at home) which are some important variables relevant to characterizing migrants. Understanding HIV risk behaviors, HIV testing, care seeking, and adherence to treatment, as well as characterizing interstate mobility and the impact of social determinants of health among Hispanic or Latino migrants are important for developing effective prevention interventions, reducing transmission and increasing survival. In addition, it is important to continue routine monitoring of the factors associated with HIV infection, including social and demographic characteristics (e.g., marital status, work history, occupation, dependents, urban or rural residency, etc.), time in the United States, mobility, social networks, acculturation level, language, behavioral risks, testing history, access to health care, and co-morbidities collected by MMP and NHBS.

As part of the assessment for this report, border states were provided with SAS programs to assess the number of cases with key variables collected

(i.e., completeness) among the Hispanic or Latino subgroup. Completeness varied among border states for country of birth, 68% - 95%, residency at diagnosis (94% - 100%), HIV transmission category (71% - 87%), and CD4 count after initial HIV diagnosis from (49% - 74 %) (See Appendix 3). It is critical to strengthen relationships with health care providers to improve reporting and completeness of key HIV surveillance variables and to expand HIV testing to reach the Hispanic or Latino migrant community to facilitate case reporting and investigation. Due to the high mobility of the migrant population and the increase in HIV diagnoses in the U.S.-Mexico border region, it is important to explore options for a standardized framework for case follow-up and information exchange with Mexican counterparts across the border region through a single mechanism to improve the current state-by-state approach. CSTE Position Statement 11-SI- 02 – Implementation of the United States-Mexico Guidelines for Coordination on Epidemiologic Events of Mutual Interest, Communication Pathways for Binational Notifications, and Creating a List of Binationally Notifiable Infectious Diseases may serve as a starting point to explore options for collaboration<sup>25,26</sup>. NHSS does not collect information that enables the classification of cases as binational (See Appendix 1 for definition), as other surveillance systems. In addition, the implementation of HHS Data Standards for race, ethnicity, sex, primary language, and disability status<sup>28,29</sup> would provide additional race/ethnicity and language spoken information to better target prevention efforts among the migrant Hispanic or Latino population.

The state surveillance programs consulted for this report indicated that surveillance programs collect HIV case information for all populations according to the Technical Guidance for HIV

Surveillance Programs; those funded for MMP and NHBS follow the respective protocols. Border states are not collecting additional variables in local fields or matching their HIV registry to datasets that could contain variables or proxy measures for mobility or migration. There is no formal HIV reporting, information exchange protocols or follow-up mechanisms to investigate HIV case reports occasionally received from health care providers practicing in Mexican counties or cities along the border region. In the course of medical record abstraction, surveillance staff attempt to determine if cases have received care or been diagnosed in Mexico. Border states have conducted geographical analysis using race/ethnicity and country of birth data to characterize HIV among foreign-born Hispanics or Latinos in the border region<sup>6,30</sup>.

The absence of clear definition of Hispanic or Latino migrant population poses a challenge when trying to characterize HIV among the subpopulation. Possible misclassification of the Hispanic or Latino population based on ethnicity was described as a challenge, since data are abstracted from medical records which may be based on a provider's observation or self-reported. The term Hispanic is used in the United States and recent immigrants may not recognize it. HIV surveillance staff indicated that one possible reason why patients may not be identified as Hispanic or Latino or migrants in medical records may be related to fear of deportation and HIV stigma; other possible reasons for missing information may include limited access to health care service and high mobility due to the transitory nature of this population as well as the lack of guidance/policies for HIV information exchange with Mexico. HIV reporting and case follow-up of HIV-infected persons in United States Immigration and Customs Enforcement ICE

detention centers, particularly for those being processed for removal and deportation from the United States and difficulties investigating cases and targeting surveillance projects in distant rural areas in the border region were other challenges identified.

To overcome challenges/barriers to conducting HIV surveillance among Hispanic or Latino migrant population, HIV surveillance staff suggested expanding HIV testing to reach the Hispanic or Latino migrant community. Persons diagnosed with HIV should be reported to state/local health departments and included in HIV case surveillance system. In addition, to ensure HIV reporting and completeness of case information such as country of birth it is important to enhance working relationships with providers serving Hispanic or Latino migrant populations. Using a standardized definition of "migrant" and defining the variables from the HIV surveillance system, will allow comparability of data across the states. Staff interviewed suggested exploring options to add additional variables relevant to migration and mobility (e.g., year of entry into the United States, years living in the United States; multiple entries to the United States; visits to native country) to the HIV case report form that would allow better characterization of migrants. Moreover, staff requested CDC's guidance on case follow-up and information exchange with Mexican counterparts in the border region through a single mechanism, such as binational infectious disease surveillance (BIDS), to replace the current state-by-state approach. Other suggestions include identifying other surveillance systems in the United States-Mexico border region that conduct successful case reporting and follow-up, such as TB, and requesting specific funds to conduct studies at the border that target Hispanics or Latinos and/or migrants.

The 2011 United States-Mexico Border Binational Infectious Disease Conference convened federal, state and local partners from both sides of the United States-Mexico border to address critical infectious disease and emergency preparedness issues impacting the region. Breakout sessions included discussions of the status of collaborations, future directions, gaps in TB, HIV, STD and hepatitis surveillance, and migrant health. BIDS staff indicated that there are no formal and specific protocols that facilitate information exchange for HIV between Mexico and the United States in the border region. However, communication and patient data exchange mechanisms for TB are working well in some areas along the region. Cross-border information sharing could be improved by the: 1) implementation of an international platform for sharing information on binational cases, 2) reactivation of the United States-Mexico Border Health Association (USMBHA) to facilitate and coordinate efforts; and 3) creation of a variable in all epidemiology surveillance systems that allows the identification of binational cases. BIDS staff suggested conducting an inventory and coordinating efforts with other groups that have worked or are currently working on binational HIV surveillance related initiatives such as Pan American Health Organization (PAHO)-El Paso, border area HIV training and education centers, University of California San Diego, and community-based organizations such as Grupo Compañeros in Ciudad Juarez. Finally BIDS staff suggested improvements on binational cooperation such as: 1) identifying and distributing contact information for primary contacts in all states/jurisdictions (available for BIDS); 2) using webinars, video conferences, and other technologies to share information and improve communication; 3) exploring the possibility of a wider use of Epi-X<sup>1</sup> as a platform

for confidential exchange of surveillance data/information; and 4) developing protocols that address the sensitivity of the data being shared (HIV) and maintain security and confidentiality. Since issues related to HIV reporting from immigration detention centers were highlighted by HIV surveillance program staff, we consulted with federal partners from U.S. ICE Enforcement and Removal Operations, ICE Health Service Corps and HRSA HIV/AIDS Bureau, Division of Training and Technical Assistance. ICE is responsible for enforcement and removal of persons in custody who were detained during immigration proceedings. ICE implements sentences imposed by the Department of Justice including removal (deportation), voluntary removal, temporary release, and permanent release of detainees. ICE Health Service Corps serve as the medical authority for ICE on a wide range of medical issues, including the agency's comprehensive detainee health care program. When necessary, it authorizes and pays for off-site specialty and emergency care, consultations, and case management. HRSA's AIDS Education Training Centers (AETCs) provide training to a diverse group of service providers. The U.S.-Mexico Border AETC Steering Team (UMBAST) works in promoting high quality, culturally sensitive education and capacity building programs for health care providers and agencies that provide HIV related prevention and clinical management services in the United States-Mexico border region. UMBAST also serves as the coordinating body to promote focused collaboration through joint planning, resource sharing, and evaluation of AETC border activities.

---

<sup>1</sup>Epi-X is CDC's secure, moderated, bi-directional web-based communications and alerting system. Using advanced encryption and verification technologies, the system can rapidly establish secure channels of communication between its users.

## Recommendations

Five areas for improvement related to surveillance of HIV infection among Hispanic or Latino migrant populations were identified from the literature review, group discussions and expert consultations. These include: 1) improving HIV case ascertainment among Hispanic or Latino migrant populations; 2) improving reporting of diagnosed cases to health departments; 3) ensuring data completeness; 4) enhancing data collection, and 5) expanding data dissemination. Actions steps to improve HIV surveillance among Hispanic or Latino migrant populations include: 1) adopting a uniform definition of “migrant,” 2) ensuring completeness of relevant variables to characterize HIV infection among Hispanic or Latino migrant populations, 3) exploring options to collect additional data relevant to “migrants” using local fields, 4) ensuring all cases are reported, and 5) developing routinely combined area reports.

We propose recommendations for improvements that should be standard practices for state and local HIV surveillance programs and suggest practices that expand on these basic improvements, to be implemented where possible.

Seven activities for improvement in HIV case surveillance standard practices were noted:

1. Identify and enhance collaboration with health care providers and community-based organizations serving Hispanic or Latino migrants and encourage ongoing HIV case reporting to the appropriate local or state health departments.
2. Improve the quality and completeness of HIV surveillance data that are necessary to measure NHAS outcomes among Hispanic or Latino migrants (i.e., demographic, behavioral, clinical, laboratory-related variables) by working with health care

providers that serve Hispanic or Latino migrants to enhance the collection of HIV case data.

3. Adopt the Department of Homeland Security definition of migrant (i.e., a person who leaves his/her country of origin to seek residence in another country) for HIV surveillance purposes and operationalize the migrant definition by using the U.S. Census Bureau approach which uses the term “foreign-born” persons (i.e., anyone living in the United States who was born outside of the United States, Puerto Rico or a United States dependency or territory to non-U.S citizen parents).
4. Use the variable ‘country of birth’ collected on the HIV surveillance adult confidential case report form and the guidance provided in the foreign-born basic analysis tool kit available from CDC to present data on foreign-born Hispanics or Latinos as a proxy for migrants.
5. Conduct further analysis using existing data from HIV case surveillance and other surveillance systems to characterize HIV infection among foreign-born Hispanics or Latinos.
6. Provide HIV prevention programs with the necessary information to guide prevention programs targeting the Hispanic or Latino migrant communities (e.g., geographical and socio-demographic information, linkage and continuity of HIV care, areas with high concentration of foreign-born Hispanics or Latinos, comorbidities).
7. Report routine summary information on HIV among foreign-born Hispanics or Latinos including disseminating joint or coordinated reports with Mexican federal and state agencies in accordance with U.S. state and local laws and regulations.

Border states should consider implementing where possible the following four practices that expand on the standard practices:

1. Collaborate with other surveillance programs (i.e., TB, STD, BIDS, etc.) to overcome barriers associated with HIV reporting and case investigation in rural areas.
2. Assess the impact of missing information among foreign-born Hispanics or Latinos on NHHS outcome standards.
3. Explore options to use local fields in eHARS to collect data that will support better characterization of HIV infection among Hispanic or Latino migrant populations (e.g., year of arrival in the United States, racial/ethnic subpopulations, primary language, cross border mobility).
4. Conduct special studies and targeted surveys aimed at hard-to-reach Hispanic or Latino migrants at risk of HIV infection to inform and focus HIV prevention efforts and care services.

## Contributors

**CDC workgroup involved in preparing this report (in alphabetical order):** Lead: Angela Hernandez Workgroup members: Pollyanna Chavez, Emilio J. German, Andrew Mitsch, Eduardo Valverde, Cyprian Wejnert, Division of HIV/AIDS Prevention; Alfonso Rodriguez Lainz, Division of Global Migration and Quarantine

**Other CDC Staff consulted:** Amy Lansky, Donna Hubbard McCree, Irene Hall, James Heffelfinger, Benjamin Laffoon, Zanetta Gant, Jane Kelly, Division of HIV/AIDS Prevention; Steve Waterman, U.S.-Mexico Unit, Division of Global Migration and Quarantine; Nicole Fitzpatrick, U.S.-Mexico Unit, Division of Global Migration and Quarantine; Binational Infectious Disease Surveillance Representatives

### **State and Local HIV Surveillance Programs**

**Partners:** Arizona Department of Health Services: Jana Distefano, Jennifer Warrington; California Department of Public Health: Karen Mark, Azita Naghdi, Zhijuan Sheng; Los Angeles County Department of Public Health: Trista Bingham, Douglas Frye, Virginia Hu, Vingho Ma, Ying Ou, Kwa Sey, LaTonya Taylor; San Francisco Department of Public Health: Ling Hsu, Maree K. Parisi; New Mexico Department of Health: Terry Bryant, Kelly Gallagher; Puerto Rico Department of Health: Bernardita Lopez, Edna Marrero, Sandra Miranda De Leon, Ilsa Santiago; Texas Department of Health & Human Services: Jennifer Chase, Miranda Fanning, Rebecca Filipowicz, Sharon Melville, Michelle Porter, Kacey Russell, Stanley See; Houston Department of Health & Human Services : Shirley Chan, Karen Chronister, Jeffrey Meyer, Naqi Mohammad, Marcia Wolverton; University of Texas Southwestern Medical Center: Douglas Shehan; Virgin Islands Department of Health: Karissa Cave, Monifa Carrilo, Annette Gumbs-Hobson, LaVida Joseph-Brown

**External Experts:** Dirección General Adjunta de Epidemiología - Centro Nacional de Vigilancia Epidemiológica y Control de Enfermedades, Secretaría de Salud de México - Secretariat of Health of Mexico – General Directorate of Epidemiology: Ricardo Cortés Alcalá, Norma Luna; United States Immigration and Customs Enforcement (ICE), Enforcement and Removal Operations, ICE Health Service Corps; Diana Schneider ; Health Resources and Services Administration, HIV/AIDS Bureau, Division of Training and Technical Assistance: Diana Travieso Palow

**Other contributors:** Walden University Student: Shanteisha Haynes

## References

1. Office of National AIDS Policy. National HIV/AIDS Strategy for the United States. Washington, DC: Office on National AIDS Policy; 2010. Available at: <http://www.whitehouse.gov/files/documents/nhas-implementation.pdf>. Accessed July 7, 2011.
2. U.S. Environmental Protection Agency. La Paz Agreement. Washington DC: U.S. Environmental Protection Agency; 1983. Available at <http://www.epa.gov/Border2012/docs/LaPazAgreement.pdf>. Accessed December 11, 2011.
3. U.S. Environmental Protection Agency. Border 2010: U.S. Mexico Environment Program. Washington DC: U.S. Environmental Protection Agency; 2003. Available at <http://www.epa.gov/border2012/>. Accessed November 8, 2011.
4. United States-Mexico Border Health Commission. Border Region. El Paso, TX: United States-Mexico Border Health Commission; 2002. Available at [http://www.borderhealth.org/border\\_region.php](http://www.borderhealth.org/border_region.php). Accessed November 5, 2011.
5. U.S. Census Bureau. Place of Birth of the Foreign-Born - American Community Survey Briefs. Washington DC: U.S. Census Bureau; 2010. Available at <http://www.census.gov/prod/2010pubs/acsbr09-15.pdf>. Accessed November 10, 2012.
6. National Alliance for State and Territorial AIDS Directors. HIV/AIDS en la Frontera: U.S. Mexico Border Epidemiologic Profile, Volume I, March 2009. Washington DC: National Alliance for State and Territorial AIDS Directors; 2009. Available at [http://www.azdhs.gov/phs/hiv/pdf/200951\\_NASTAD\\_Border\\_Vol1\\_alpha.pdf](http://www.azdhs.gov/phs/hiv/pdf/200951_NASTAD_Border_Vol1_alpha.pdf). Accessed November 10, 2011.
7. Pan American Health Organization. HEALTH IN THE AMERICAS, 2007. VOLUME II-COUNTRIES. Washington DC: Pan American Health Organization; 2007. Available at <http://www.paho.org/hia/archivosvol2/paisesing/United%20States%20Mexico%20Border%20Area%20English.pdf>. Accessed November 10, 2011.
8. European Centre for Disease Prevention and Control. Migrant health: HIV testing and counselling in migrant populations and ethnic minorities in EU/EEA/EFTA Member States. Stockholm: ECDC; 2011. Available at [http://www.iss.it/binary/ccoa/cont/HIV\\_in\\_migrants.pdf](http://www.iss.it/binary/ccoa/cont/HIV_in_migrants.pdf). Accessed December 19, 2011.
9. World Health Organization. Health of Migrants - The Way Forward: Report of a Global Consultation, Madrid, Spain, 3-5 March 2010. Available at [http://www.who.int/hac/events/consultation\\_report\\_health\\_migrants\\_colour\\_web.pdf](http://www.who.int/hac/events/consultation_report_health_migrants_colour_web.pdf). Accessed December 19, 2011.
10. U.S. Department of Homeland Security. U.S. Citizenship and Immigration Services. Washington DC. Available at <http://www.uscis.gov/portal/site/uscis/menuitem.eb1d4c2a3e5b9ac89243c6a7543f6d1a/?vgnnextoid=b328194d3e88d010VgnVCM10000048f3d6a1RCRD&vgnnextchannel=b328194d3e88d010VgnVCM10000048f3d6a1RCRD>. Accessed November 10, 2011.
11. Kandel, W. Profile of Hired Farmworkers, A 2008 Update. Economic Research Report No. 60, Economic Research Service, U.S. Department of Agriculture, June 2008.
12. U.S. Census Bureau. The Hispanic Population: 2010. Washington DC: U.S. Census Bureau; 2011. Available at <http://www.census.gov/prod/cen2010/briefs/c2010br-04.pdf>. Accessed November 10, 2011.

13. U.S. Department of Homeland Security. U.S. Legal Permanent Residents:2010. Washington DC: U.S. Department of Homeland Security. Available at [http://www.dhs.gov/xlibrary/assets/statistics/publications/lpr\\_fr\\_2010.pdf](http://www.dhs.gov/xlibrary/assets/statistics/publications/lpr_fr_2010.pdf). Accessed November 27, 2012
14. Passel J, Cohn D. Unauthorized Immigrant Population: National and State Trends, 2010. Washington DC: Pew Hispanic Center: 2011. Available at <http://www.pewhispanic.org/files/reports/133.pdf>. Accessed December 19, 2011.
15. U.S. Department of Homeland Security. Estimates of the Unauthorized Immigrant Population Residing in the United States: January 2009. Washington DC: U.S. Department of Homeland Security; 2010. Available at [http://www.dhs.gov/xlibrary/assets/statistics/publications/ois\\_ill\\_pe\\_2009.pdf](http://www.dhs.gov/xlibrary/assets/statistics/publications/ois_ill_pe_2009.pdf). Accessed November 10, 2011.
16. Centers for Disease Control and Prevention. HIV Surveillance Report, 2011; vol 23. Available at [http://www.cdc.gov/hiv/library/reports/surveillance/2011/surveillance\\_Report\\_vol\\_23.html](http://www.cdc.gov/hiv/library/reports/surveillance/2011/surveillance_Report_vol_23.html). Accessed July 23, 2013
17. Centers for Disease Control and Prevention. Estimated HIV incidence in the United States, 2007–2010. HIV Surveillance Supplemental Report 2012;17(No. 4). <http://www.cdc.gov/hiv/topics/surveillance/resources/reports/#supplemental>. Published December 2012. Accessed July 23, 2013
18. Espinoza L, Hal HI, Selik R, Hu X. Characteristics of HIV Infection Among Hispanics, United States 2003-2006. Journal of Acquired Immune Deficiency Syndromes, 2008;49: 99-104.
19. Espinoza L, Hall HI, Hu X. Increases in HIV Diagnoses at the U.S.-Mexico Border, 2003-2006. AIDS Education and Prevention. 2009;21 (Suppl B): 19-33.
20. Centers for Disease Control and Prevention. HIV/AIDS Statistics and Surveillance. Available at <http://www.cdc.gov/hiv/topics/surveillance/index.htm>. Accessed on December 21, 2012.
21. Centers for Disease Control and Prevention. Data Security and Confidentiality Guidelines for HIV, Viral Hepatitis, Sexually Transmitted Disease, and Tuberculosis Programs . Available at <http://www.cdc.gov/nchstp/programintegration/docs/PCSIDataSecurityGuidelines.pdf>. Accessed December 21, 2011.
22. Taylor P, Lopez M, Martínez J, Velasco G. When Labels Don't Fit: Hispanics and Their Views of Identity. Pew Research Center: 2012. Available at <http://www.pewhispanic.org/files/2012/04/Hispanic-Identity.pdf>. Accessed April 4, 2012.
23. Agency for Health Research and Quality. Race, Ethnicity, and Language Data: Standardization for Health Care Quality Improvement. Available at <http://www.ahrq.gov/research/iomracereport/reldata5.htm>. Accessed August 12, 2012
24. Prosser AT, Tang T, Hall HI. HIV in Persons Born Outside the United States, 2001-2010. Journal of the American Medical Association. 2012;308(6):601-607.
25. Council of State and Territorial Epidemiologists. Revised Guidelines for Determining Residency for Disease Notification 2011. Available at <http://www.cste.org/ps2011/11-SI-04.pdf>. Accessed December 10, 2011.
26. Council of State and Territorial Epidemiologists. Implementation of the

- US-Mexico Guidelines for Coordination on Epidemiologic 2011. Available at <http://www.cste.org/ps2011/11-SI-02.pdf>. Accessed December 12, 2011.
27. Centers for Disease Control and Prevention. Final Rule Removing HIV Infection from U.S. Immigration Screening, 2010. Available at <http://www.cdc.gov/immigrantrefugeehealth/laws-regs/hiv-ban-removal/index.html>. Accessed November 11, 2011.
  28. U.S. Department of Health and Human Services. Office of Minority Health. Available at <http://minorityhealth.hhs.gov/templates/browse.aspx?lvl=2&lvlID=208>. Accessed December 12, 2011.
  29. Dorsey, R.,Graham, G. New HHS Data Standards for Race, Ethnicity, Sex, Primary Language, and Disability Status. *The Journal of the American Medical Association*, 2011;21:306
  30. California HIV/AIDS Research Program. California-Mexico AIDS Initiative -California-Mexico Epidemiological Surveillance Pilot (2003-2004). Available at [http://www.californiaaidsresearch.org/initiatives\\_programs/cal\\_mex/index.html](http://www.californiaaidsresearch.org/initiatives_programs/cal_mex/index.html). Accessed December 12, 2011.
  - <http://www.hrsa.gov/grants/apply/assistance/Buckets/definitions.pdf>. Accessed November 10, 2011.
  3. Massey DS, Sana M. Patterns of Migration from Mexico, the Caribbean, and Central America. *Migraciones Internacionales*. 2003; 2:5-39.
  4. Doyle TJ, Bryan RT. Infectious disease morbidity in the U.S. region bordering Mexico, 1990-1998. *Journal of Infectious Diseases*. 2000;182:1503-1510.
  5. Organista KC, Carrillo H, Ayala G. HIV Prevention with Mexican Migrants: Review, Critique, and Recommendations. *Journal of Acquired Immune Deficiency Syndromes*. 2004;37:227-239.
  6. Albarran C, Nyamathi A. HIV and Mexican Migrant Workers in the United States: A Review Applying in the Vulnerable Populations Conceptual Model. *Journal of the Association of Nurses in AIDS Care*. 2010;22:173-185.
  7. Fernandez MI, Collazo JB, Bowen GS, Varga LM. Predictors of HIV Testing and Intention to Test Among Hispanic Farmworkers in South Florida. *The Journal of Rural Health*. 2006;21:56-64.
  8. Alvarez M, Jakhmola P, Painter TM, Taillepierre JD, Romaguera RA, Herbst JH, Wolitski RJ. Summary of Contents and Recommendations from the CDC Consultation on the HIV/AIDS Epidemic and Prevention in the Hispanic/Latino Community. *AIDS Education and Prevention*. 2009;21:7-18.
  9. Hirsch JS, Higgins J, Bentley ME, et al. *The social constructions of sexuality: marital infidelity and sexually transmitted disease-HIV risk in a Mexican migrant community*.

## Other Documents and References Reviewed

1. Department of Homeland Security. 2010 Yearbook of Migration Statistics. Available at [http://www.dhs.gov/xlibrary/assets/statistics/yearbook/2010/ois\\_yb\\_2010.pdf](http://www.dhs.gov/xlibrary/assets/statistics/yearbook/2010/ois_yb_2010.pdf). Accessed November 10, 2011.
2. Health Resources and Services Administration . Health Center Program Terms and Definitions. Available at

- American Journal of Public Health. 2002; 92: 1227-1237.
10. Muñoz-Laboy M, Hirsch JS, Quipse-Lazaro A. Loneliness as a sexual risk factor for male Mexican migrant workers. American Journal of Public Health. 2009; 99:1-9.
  11. Shedlin MG, Decena CU, Oliver-Velez D. Initial acculturation and HIV risk among new Hispanic immigrants. Journal of the National Medical Association. 2005; 97: 32S-37S.
  12. Sanchez MA, Lemp GF, Magis-Rodriguez C, et al. The epidemiology of HIV among Mexican migrants and recent immigrants in California and Mexico. Journal of Acquired Immune Deficiency Syndrome. 2004; 37: S204-214.
  13. Organista KC. Towards a structural-environmental model of risk for HIV and problem drinking in Latino labor migrants: the case of day laborers. Journal of Ethnical and Cultural Diversity in Social Work. 2007;16: 95-125.
  14. Strathdee SA, Lozada R, Ojeda VD, Pollini RA, Brower KC, et al. Differential Effects of Migration and Deportation on HIV Infection among Male and Female Injection Drug Users in Tijuana, Mexico. PLoS ONE. 2008;3:e2690. doi:10.1371/journal.pone.0002690.
  15. Centers for Disease Control and Prevention. Guidelines for US-Mexico Coordination. Available at [http://www2.cdc.gov/phlp/docs/US\\_Mexico\\_Epi\\_Info\\_Sharing.pdf](http://www2.cdc.gov/phlp/docs/US_Mexico_Epi_Info_Sharing.pdf). Accessed December 12, 2011.
  16. Centers for Disease Control and Prevention. HIV among Hispanics/Latinos. Available at <http://www.cdc.gov/hiv/hispanics/resources/factsheets/pdf/hispanic.pdf>. Accessed November 10, 2011.
  17. Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2010. Available at <http://www.cdc.gov/std/stats/>. Accessed November 10, 2011.
  18. Centers for Disease Control and Prevention. Outbreak of swine-origin influenza A (H1N1) virus infection---Mexico, March--April. Available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5821a2.htm.467-70>. Accessed November 10, 2011.
  19. Shira M, Goldenberg SM, Strathdee SA, Perez-Rosales MD, et al. Mobility and HIV in Central America and Mexico: A critical review. Journal of Immigrant Minority Health. 2011; Vol. Published online July 26 2011: <http://www.springerlink.com/content/155144544510n602/ful>.
  20. UNAIDS. Population Mobility and AIDS. UNAIDS Technical Update, February 2001. Available at [http://img.thebody.com/un aids/2001/population\\_mobility.pdf](http://img.thebody.com/un aids/2001/population_mobility.pdf). Accessed December 14, 2011.
  21. KC, Organista. Towards a Structural-Environmental Model of Risk for HIV and Problem Drinking in Latino Labor Migrants: The Case of Day Laborers. Journal of Ethnic And Cultural Diversity in Social Work., 2007;16:95-125.

# Figures and Tables

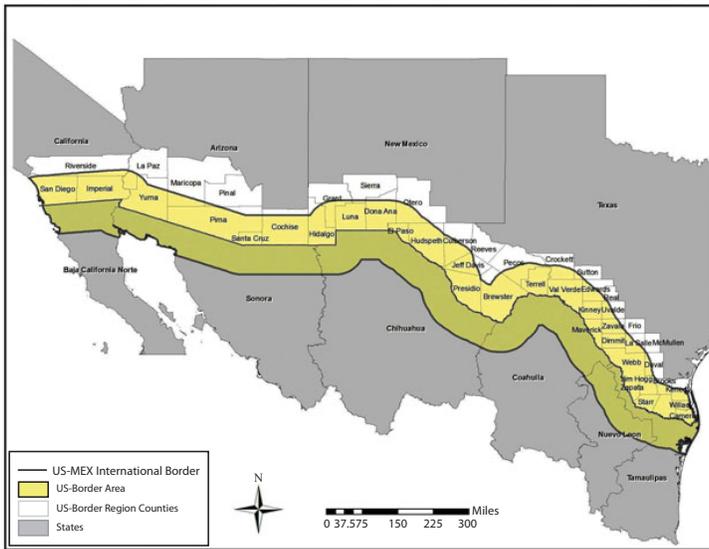


Figure 1. United States-Mexico Border Region or Area

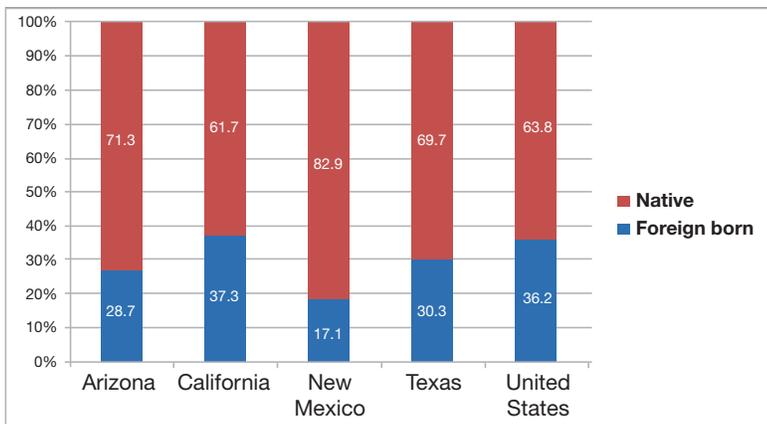


Figure 2. Hispanics or Latinos by Nativity, Border States and United States Overall, 2008-2010

Source: U.S. Census Bureau, 2011 American Community Survey

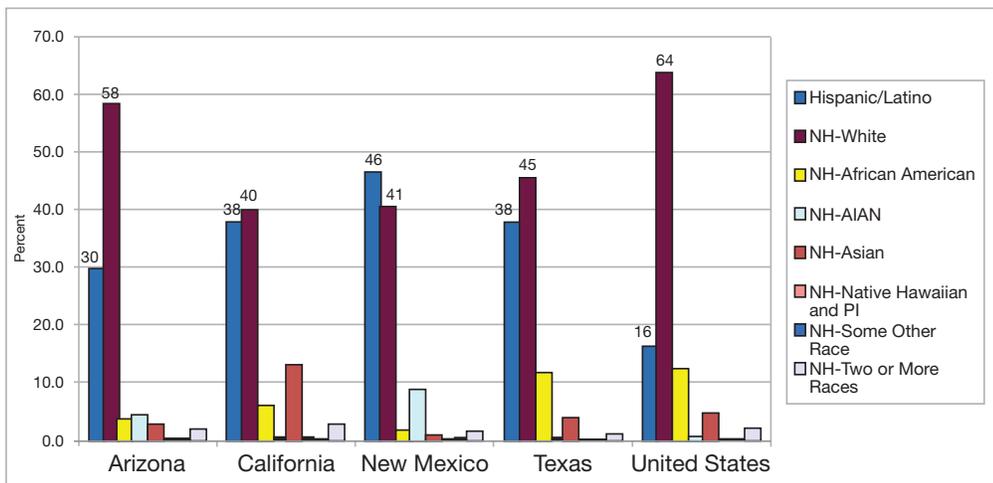


Figure 3. Population distribution by Hispanic or Latino ethnicity and race, Border States and United States, 2010

Source: 2010 Census Summary File 1

Table 1. Hispanics or Latinos by Nativity, Border States and United States overall, 2011

	Arizona		California		New Mexico		Texas		United States	
	Number	%	Number	%	Number	%	Number	%	Number	%
Native	1,390,157	71.3	9,007,887	62.7	806,403	82.9	6,823,202	69.7	33,136,169	63.8
Foreign-born	559,138	28.7	5,351,613	37.3	166,648	17.1	2,968,426	30.3	18,803,747	36.2
Total	1,949,295	100.0	14,359,500	100.0	973,051	100.0	9,791,628	100.0	51,939,916	100.0

Source: U.S. Census Bureau, 2011 American Community Survey

Table 2. Place of birth for the Latin American foreign-born population in Border States, 2009-2011

Country or Region of Birth	Arizona		California		New Mexico		Texas	
	Number	%	Number	%	Number	%	Number	%
Mexico	520,397	90.5	4,311,466	78.8	147,939	91.0	2,459,724	82.4
El Salvador	8,244	1.4	423,050	7.7	1,756	1.1	176,066	5.9
Guatemala	11,151	1.9	264,151	4.8	3,144	1.9	61,348	2.1
Honduras	2,751	0.5	58,867	1.1	993	0.6	80,560	2.7
Argentina	3,142	0.5	65,215	1.2	696	0.4	18,701	0.6
Nicaragua	921	0.2	65,171	1.2	144	0.1	14,940	0.5
Bolivia	5,470	1.0	37,457	0.7	803	0.5	35,109	1.2
Chile	2,158	0.4	30,354	0.6	491	0.3	12,911	0.4
Brazil	2,245	0.4	31,750	0.6	856	0.5	9,660	0.3
Colombia	1,265	0.2	23,691	0.4	458	0.3	7,865	0.3
Ecuador	1,079	0.2	15,678	0.3	713	0.4	3,702	0.1
Caribbean region	10,960	1.9	70,300	1.3	3,533	2.2	58,485	2.0
Other Central America	2,595	0.5	44,011	0.8	511	0.3	18,820	0.6
Other South America	2,701	0.5	30,645	0.6	617	0.4	26,875	0.9
Total Latin America	575,079	100.0	5,471,806	100.0	162,654	100.0	2,984,766	100.0

Source: U.S. Census Bureau, 2009-2011 American Community Survey

Table 3. Hispanic or Latino ethnicity and race, Border States and United States, 2010

	Arizona		California		New Mexico		Texas		United States	
	N	%	N	%	N	%	N	%	N	%
Hispanic/Latino	1,895,149	29.6	14,013,719	37.6	953,403	46.3	9,460,921	37.6	50,477,594	16.3
NH-White	3,695,647	57.8	14,956,253	40.1	833,810	40.5	11,397,345	45.3	196,817,552	63.7
NH-African American	239,101	3.7	2,163,804	5.8	35,462	1.7	2,886,825	11.5	37,685,848	12.2
NH-American Indian and Alaska Native	257,426	4.0	162,250	0.4	175,368	8.5	80,586	0.3	2,247,098	0.7
NH-Asian	170,509	2.7	4,775,070	12.8	26,305	1.3	948,426	3.8	14,465,124	4.7
NH-Native Hawaiian and Other Pacific Islander	10,959	0.2	128,577	0.3	1,246	0.1	17,920	0.1	481,576	0.2
NH-Some Other	8,595	0.1	85,587	0.2	3,750	0.2	33,980	0.1	604,265	0.2
NH-Two or More Races	114,631	1.8	968,696	2.6	29,835	1.4	319,558	1.3	5,966,481	1.9
Total population	6,392,017	100	37,253,956	100	2,059,179	100	25,145,561	100	308,745,538	100

Source: U.S. Census Bureau, 2010 Census

Table 4. Distribution of Total Hispanics or Latinos and Foreign-Born Hispanics or Latinos participating in the 2010 National HIV Behavioral Surveillance Survey-Heterosexuals at high risk for HIV infection cycle, by Metropolitan Statistical Area in United States-Mexico Border States

City	Foreign-born Hispanics	Total Hispanic
Dallas	23	64
Houston	Less than 5	27
Los Angeles County	100	277
San Diego	341	488
San Francisco	14	44
Source: 2010 National HIV Behavioral Surveillance Survey		

## Appendices

### Appendix 1 Definitions

**Asylee** - An alien in the United States or at a port of entry who is found to be unable or unwilling to return to his or her country of nationality, or to seek the protection of that country because of persecution or a well-founded fear of persecution. Persecution or the fear thereof must be based on the alien's race, religion, nationality, membership in a particular social group, or political opinion. For persons with no nationality, the country of nationality is considered to be the country in which the alien last habitually resided. Asylees are eligible to adjust to lawful permanent resident status after one year of continuous presence in the United States. These immigrants are limited to 10,000 adjustments per fiscal year <sup>A1</sup>.

**Binational Case** - The Guidelines for U.S.-Mexico Coordination on Epidemiologic Events of Mutual Interest refers to an individual with a confirmed or probable case of a notifiable infectious disease, and who has recently traveled or lived in the neighboring country, or had recent contact with persons who lived or traveled in the neighboring country; or who is thought to have acquired the infection in the neighboring country or have been in the neighboring country during the incubation period of the infection and was possibly contagious during this period; or who is thought to have acquired the infection from a product from the other country; or whose case requires the collaboration of both countries for the purposes of disease investigation and control <sup>A2</sup>.

**Border Crosser** - An alien resident of the United States reentering the country after an absence of less than six months in Canada or Mexico, or a nonresident alien entering the United States across the Canadian border for stays of no more than six months or across the Mexican border for stays of no more than 72 hours <sup>A1</sup>.

**Foreign-born** - The U.S. Census Bureau uses the term foreign-born population to refer to anyone residing in the U.S. who is not a U.S. citizen at birth (i.e., U.S. citizen at birth is anyone born in the United States, Puerto Rico or a U.S. dependency or those born abroad of at least one U.S. citizen parent). The U.S. Census Bureau conducts a decennial census to count all people living in the United States on the day of the census<sup>2</sup>. Foreign citizens living in the United States are included in the census count, while those visiting on a vacation or business trip are not counted. Until the year 2000, questions on the characteristics of the foreign-born population residing in the U.S were included in the decennial census long-form questionnaire. Since then, the decennial census long-form has been replaced by the American Community Survey (ACS)<sup>3</sup>. The ACS questionnaire includes several migration-related questions (e.g., country of birth, year of entry to the U.S, citizenship status). The Census Bureau defines “foreign-born” as anyone living in the U.S who is not a United States citizen at birth<sup>4</sup>. The foreign-born can be classified as naturalized citizens and not United States citizens, but no further immigration legal status data are collected. All respondents born outside the United States are also asked for the year in which they came to live in the United States<sup>A3</sup>.

<sup>2</sup>They are counted in the residence where they live or sleep most of the time (i.e., “usual residence”)

<sup>3</sup>The American Community Survey, conducted by the Census Bureau, is a nationwide, continuous survey of nearly 3 million addresses each year, designed to provide communities with reliable and timely demographic, housing, social, and economic data every year.

<sup>4</sup>U.S citizen at birth or native is anyone born in the United States or a U.S. Island Area, such as Puerto Rico, or born abroad of a U.S. citizen parent. The foreign-born population thus includes naturalized U.S. citizens, lawful permanent residents, temporary migrants (e.g., migrant workers, foreign students), refugees and asylees, and the unauthorized immigrants.

**Migrant and immigrant** - There is not an internationally accepted definition of ‘migrant’ or ‘immigrant’. Countries and agencies use their own criteria based on their own legislation, policies and practices.

For the Joint United Nation Program on HIV/AIDS (UNAIDS), the term “migration” is used mainly for economic migration<sup>A4</sup>. This organization defines migrants as mobile people who take up residence or who remain for an extended stay in a foreign country<sup>A5</sup>. Migration involves migrants in regular and irregular situations, economic migrants, asylum seekers, victims of trafficking, refugees, displaced persons, returnees and internal migrants<sup>A6</sup>. The United Nations (UN) defines an “international migrant” as an individual who changes his/her country of usual residence. The U.N proposes a minimum of 12-month period to qualify for a change in usual residence. From the perspective of the country of departure the person is an “emigrant” and for the country of arrival it is an “immigrant”<sup>A7</sup>. Travel for the purpose of business, tourism, religious pilgrimage or to visit relatives and friends, is not considered migration<sup>A6</sup>.

In the United States, the Department of Homeland Security (DHS), Office of Immigration Statistics, defines a “migrant” as “a person who leaves his/her country of origin to seek residence in another country”. The Immigration and Nationality Act (INA) broadly defines an immigrant as any alien in the United States, except one legally admitted under specific nonimmigrant categories (INA section 101(a) (15)). An illegal alien who entered the United States without inspection, for example, would be strictly defined as an immigrant under the INA but is not a permanent resident alien<sup>A1</sup>. However, DHS commonly uses the term “immigrant” to refer only to aliens admitted to the United

States as a lawful permanent resident. In contrast, “nonimmigrants” are foreign nationals granted temporary entry into the United States for a specific purpose. The alien must have a permanent residence abroad. Maximum duration of stay is determined by class of admission. Nonimmigrants include foreign government officials, visitors for business and for pleasure, foreign students, and temporary workers<sup>A1</sup>. “Unauthorized (resident) immigrants” are all foreign-born non-citizens who are not legal residents<sup>A8</sup>. Most unauthorized residents either entered the United States without inspection or were admitted temporarily and stayed past the date they were required to leave.

**Migrant agricultural worker** - The definition of migrant agricultural worker also varies among the multitude of federal government agencies and programs that provide services to this population. For example, the Health Resources and Services Administration (HRSA) uses the term “migratory agricultural worker” for an individual whose principal employment is in agriculture, who has been so employed within the last 24 months, and who establishes for the purposes of such employment a temporary abode. A “seasonal agricultural worker” is an individual whose principal employment is in agriculture on a seasonal basis and who is not a migratory agricultural worker<sup>A9</sup>. In contrast, the U.S Department of Labor uses the following definitions<sup>6</sup>:

- *Migrant Farmworker* - is a seasonal farmworker who had to travel to do the farmwork so that he/she was unable to return to his/her permanent residence within the same date.
- *Seasonal Farmworker* - is a person who during the preceding 12 months worked at least an aggregate of 25 or more days or parts of days in which some work was performed

in farmwork earned at least half of his/her earned income from farmwork, and was not employed in farmwork year round by the same employer.

<sup>6</sup>The U.S Department of Labor also includes migrant food processing workers in their broad category of Migrant and Seasonal Farmworkers

**Migrant worker** - UNAIDS defines a migrant worker as “a person who migrates from one country or area to another in pursuit of job opportunities”<sup>A4</sup>.

**Mobile people** - UNAIDS broadly defines mobile people as those who “move from one place to another temporarily, seasonally or permanently for a host of voluntary and/or involuntary reasons”. Reasons may include family reunion, economic opportunity, violence, and persecution, medical or health care needs<sup>A5</sup>.

**Mobile worker** - Refers to persons who “may cross borders or move within their own country on a usually frequent and short-term basis for work reasons, without changing place of habitual primary residence or home base<sup>A4</sup>.

**Refugee** - Any person who is outside his or her country of nationality who is unable or unwilling to return to that country because of persecution or a well-founded fear of persecution. Persecution or the fear thereof must be based on the alien's race, religion, nationality, membership in a particular social group, or political opinion. People with no nationality must generally be outside their country of last habitual residence to qualify as a refugee. Refugees are subject to ceilings by geographic area set annually by the President in consultation with Congress and are eligible to adjust to lawful permanent resident status after one year of continuous presence in the United States<sup>A1</sup>.

**Victims of Trafficking** - Public Law 106-386 (Act of 10/28/2000), enacted to combat trafficking in persons, especially into the sex trade, slavery, and involuntary servitude, and to reauthorize certain Federal programs to prevent violence against immigrant women and children. Created nonimmigrant classes of admission allowing temporary status to individuals (and spouses, children, and parents) in the United States who are or have been victims of a severe form of trafficking or who have suffered substantial physical or mental abuse as victims of criminal activity. Afforded the same immigrant benefits as refugees, with allowance for adjustment to permanent resident status<sup>A1</sup>.

## References

- A1. U.S. Department of Homeland Security. Data Standards and Definitions. Washington DC: Office of Immigration Statistics. Available at <http://www.dhs.gov/files/statistics/stdfdef.shtm>. Accessed November 25, 2011
- A2. Centers for Disease Control and Prevention. *Guidelines for US-Mexico Coordination*. Available at [http://www2.cdc.gov/phlp/docs/US\\_Mexico\\_Epi\\_Info\\_Sharing.pdf](http://www2.cdc.gov/phlp/docs/US_Mexico_Epi_Info_Sharing.pdf). Accessed December 21, 2011.
- A3. U.S. Census Bureau. American Community Survey, Puerto Rico Community Survey, 2010 Subject Definitions. Available at [http://www.census.gov/acs/www/Downloads/data\\_documentation/Subject-Definitions/2010\\_ACSSubjectDefinitions.pdf](http://www.census.gov/acs/www/Downloads/data_documentation/Subject-Definitions/2010_ACSSubjectDefinitions.pdf). Accessed December 21, 2011.
- A4. UNAIDS Terminology Guidelines. October 2011 Available at [http://www.unaids.org/en/media/unaids/contentassets/documents/document/2011/20111025\\_UNAIDS\\_Terminology\\_Guidelines\\_En.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/document/2011/20111025_UNAIDS_Terminology_Guidelines_En.pdf). Accessed November 25, 2011

- A5. UNAIDS. Population Mobility and AIDS. UNAIDS Technical Update, February 2001. Available at [http://img.thebody.com/un aids/2001/population\\_mobility.pdf](http://img.thebody.com/un aids/2001/population_mobility.pdf). Accessed December 14, 2011.
- A6. World Health Organization. Health of migrants: the way forward - report of a global consultation, Madrid, Spain, 3-5 March 2010 Available at [http://www.who.int/hac/events/consultation\\_report\\_health\\_migrants\\_colour\\_web.pdf](http://www.who.int/hac/events/consultation_report_health_migrants_colour_web.pdf). November 25, 2011.
- A7. United Nations. Report of the Expert Group Meeting on Measuring International Migration: Concepts and Methods 2007. United Nations Publication ESA/STAT/AC.119/L.3, New York. Available at <http://unstats.un.org/unsd/demographic/meetings/egm/migrationegm06/FINAL%20REPORT%20L3.pdf>. Accessed at November 25, 2011.
- A8. Hofer, Michael, Nancy Rytina and Bryan C. Baker. Estimates of the Unauthorized Immigrant Population Residing in the United States 2010. Office of Immigration Statistics, Policy Directorate, U.S. Department of Homeland Security, Available at [http://www.dhs.gov/xlibrary/assets/statistics/publications/ois\\_ill\\_pe\\_2010.pdf](http://www.dhs.gov/xlibrary/assets/statistics/publications/ois_ill_pe_2010.pdf). Accessed February 12, 2012.
- A9. Health Resources and Services Administration. Authorizing Legislation of the Health Center Program: Public Health Service Act (Section 330 g) (42 USC 254b). Available at <http://bphc.hrsa.gov/policies-regulations/legislation/authorizing330.pdf>. Accessed December 21, 2011.

### Additional Reading:

- A10. United Nations World Tourism Organization. Understanding Tourism: Basic Glossary. Available at <http://media.unwto.org/en/content/understanding-tourism-basic-glossary>. Accessed November 25, 2011.
- A11. Humes KR, Jones NA, and Ramirez RR. Overview of Race and Hispanic Origin: 2010. U.S. Census Bureau. 2010 Census briefs. March (2011)
- A12. U.S Census Bureau. *2010 Census Questionnaire Reference Book*. Washington, DC: U.S. Government Printing Office. Available at [http://2010.census.gov/partners/pdf/langfiles/qrb\\_English.pdf](http://2010.census.gov/partners/pdf/langfiles/qrb_English.pdf). Accessed November 25, 2011.
- A13. U.S. Census Bureau. *Design and Methodology. American Community Survey*. U.S. Washington, DC: Government Printing Office. Available at [http://www.census.gov/acs/www/Downloads/survey\\_methodology/acs\\_design\\_methodology.pdf](http://www.census.gov/acs/www/Downloads/survey_methodology/acs_design_methodology.pdf). Accessed November 25, 2011.
- A14. United States-Mexico Border Health Commission. Healthy Border 2010 Midterm Review. U.S Border Area. Available at [http://www.borderhealth.org/files/res\\_1815.pdf](http://www.borderhealth.org/files/res_1815.pdf). Accessed on January 2012. Accessed November 25, 2011.

## Appendix 2

Inventory of Variables and Indicators of Interest for Migration and Mobility Collected by the National HIV Surveillance System (NHSS), the Medical Monitoring Project (MMP), and the National HIV Behavioral Surveillance System (NHBS) and – 2011

Variables and Indicators	CDC HIV Surveillance System					
	NHSS		MMP		NHBS	
	Y/N*	Level**	Y/N*	Level**	Y/N*	Level**
<b>Demographic</b>						
Country of birth	Y	INB	Y	IA	Y	IA
Residence at HIV diagnosis:	Y	INB				
City	Y	INB				
County	Y	INB				
State	Y	INB				
Country	Y	INB				
Current residence	Y	INB			Y	IA
City	Y	INB				
County	Y	INB				
State	Y	INB				
Country	Y	INB				
Marital status					Y	IA
No. of dependents			Y	IA	Y	IA
Occupation						
Living accommodations			Y	IA	Y	IA
Level of education			Y	IA	Y	IA
Source of income			Y	IA		
<b>Mobility Information</b>						
Year of first arrival to U.S.			Y	IA	Y	IA
Age of first arrival to U.S.			Y	IA	Y	IA
Years living in the U.S.			Y	IA	Y	IA
Long term plan residence plans	N/A		N/A		N/A	
No. of visits to country of origin since first arriving in U.S.	N/A		N/A		N/A	
Date of last visit of a month or more to country of origin	N/A		N/A		N/A	
Prior residence in the U.S.	N/A		N/A		N/A	
Prior work in the U.S.	N/A		N/A		N/A	
Duration of last residence	N/A		N/A		N/A	
<b>Facility of Diagnosis</b>						
Type of facility where HIV was diagnosed	Y	INB	Y	IA		
<b>Patient History</b>						
Sex partner networks	N/A		N/A		Y	IA
IDU networks	N/A		N/A		Y	IA
Probable location of HIV acquisition	N/A		N/A		N/A	N/A
*Y/N: Indicates whether the variable is collected or not by the selected surveillance system						
**Level: INB indicates that variables are collected at an individual name-based level; IA Indicates that variables are collected at an individual anonymous level						

Variables and Indicators	CDC HIV Surveillance System					
	NHSS		MMP		NHBS	
	Y/N*	Level**	Y/N*	Level**	Y/N*	Level**
Level of acculturation of foreign-born Hispanics or Latinos						
Acculturation scale	N/A		Y	IA	N/A	
Language used at home/friends	N/A		Y	IA	Y	IA
Behavioral History/Risk Factors						
Sex history	Y	INB	Y	IA	Y	IA
Sex with female	Y	INB			Y	IA
Sex with male	Y	INB			Y	IA
Heterosexual relations with any of						
IDU	Y	INB			Y	IA
Bisexual male	Y	INB			Y	IA
Person with hemophilia/coagulation disorder	Y	INB				
Transfusion recipient with documented HIV infection	Y	INB				
Transplant recipient with documented HIV infection	Y	INB				
Person with AIDS or documented HIV infection, risk not specified	Y	INB			Y	IA
Injection drug use history						
Injected nonprescription drugs	Y	INB			Y	IA
Non Injection drug use history						
Transplant/transfusion history	Y	INB				
Received transfusion of blood components	Y	INB				
Received transplant of tissue/organs	Y	INB				
Work history						
Work in a health care or clinical laboratory setting	Y	INB				
Laboratory Data						
Initial CD4 reporting following HIV diagnosis (within 3 months)	Y	INB	Y	IA		
Initial viral load reporting following HIV diagnosis (within 3 months)	Y	INB	Y	IA		
HIV Testing History and Treatment Information						
Date of first HIV positive test	Y	INB	Y	IA	Y	IA
Date of last HIV negative test	Y	INB	Y	IA		
Ever tested negative	Y	INB	Y	IA	Y	IA
No. of negative HIV tests within 24 months of first HIV positive	Y	INB				
Access to testing	Y	INB			Y	IA
Number and types of tests taken	Y	INB				
Test locations, dates and results	Y	INB				
Client obtained test results	Y	INB			Y	IA

Variables and Indicators	CDC HIV Surveillance System					
	NHSS		MMP		NHBS	
	Y/N*	Level**	Y/N*	Level**	Y/N*	Level**
<b>Medical Care</b>						
Care status						
In care	Y***	INB	Y	IA	Y	IA
Wait-listed						
No care					Y	IA
Source of support for care			Y	IA		
ARV Treatment	Y	INB	Y	IA		
Ever taken ARVs	Y	INB	Y	IA	Y	IA
Dates ARVs were taken – First/Last	Y	INB	Y	IA		
<b>Co morbidities</b>						
Syphilis			Y	IA	Y	IA
Hepatitis			Y	IA	Y	IA
Type			Y	IA	Y	IA
TB	Y	INB	Y	IA		
<b>Pregnancy</b>						
	Y	INB	Y	IA		
<p>*Y/N: Indicates whether the variable is collected or not by the selected surveillance system</p> <p>**Level: INB indicates that variables are collected at an individual name-based level; IA Indicates that variables are collected at an individual anonymous level</p> <p>*** Uses reported laboratory test results as proxy to measure care status</p>						

### Appendix 3

Completeness of Relevant Variables for Hispanics or Latinos diagnosed with HIV infection, Arizona, California, New Mexico, Texas, 2009

Variable	Use/Definition	Standard	% Completeness in border states
Country of birth	Classifies native US persons from foreign-born persons		68.4% - 94.5%
Residency at diagnosis	Areas should enter residence at the time of the first positive confirmatory test for HIV infection	HIV surveillance requires that 100% of cases have a residency at diagnosis	93.7% - 100%
HIV Transmission Category	Summarizes the multiple risk factors that an individual may have had by selecting the one through which HIV was most likely to have been transmitted	HIV surveillance data quality standard requires that at least 85% of cases have HIV Transmission Category	71.7% - 86.9%
CD4 count/percent after initial HIV diagnosis	Used for HIV disease staging and as a proxy indicator for access to care	HIV surveillance requires that at least 50% of adults and adolescents newly diagnosed with HIV infection have a reported CD4 (count/percent) test result measured within 3 calendar months following initial diagnosis of HIV infection	48.7% - 73.7% *
*3 Border States			

**Completeness of Key Variables** - Border states were provided with Statistical Analysis System (SAS) programs to assess the completeness of key variables among the Hispanic or Latino subgroup in the NHSS. Variables assessed included country of birth, residency at HIV diagnosis, HIV transmission category and CD4 count after initial HIV diagnosis.

Country of birth: The National HIV Surveillance Systems collects demographic characteristics of persons diagnosed with HIV including place of birth. NHSS uses the variable “country of birth” to collect birth place. This variable is defined as U.S. (i.e., persons born in the 50 states and DC)

and other countries/U.S. Dependencies. For persons born outside of the 50 states and DC, HIV surveillance programs should specify the U.S. dependency (i.e., American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, the Republic of Palau, and the U.S. Virgin Islands) or country. Place of birth is determined by health department personnel conducting active surveillance and reviewing medical records of persons being treated for HIV infection. CDC recommends obtaining complete information about country of birth as part of HIV case reporting. This variable is commonly used to classify persons diagnosed with HIV infection

by place of birth. For Hispanics or Latinos diagnosed with HIV infection in 2009 in the border states, completeness of the variable varied from 68.4% - 94.5%.

Residency at diagnosis: For HIV case reports, areas should enter residence at the time of the first positive confirmatory test for HIV infection. If a diagnostic test result is not available, areas should enter the patient's residence at the time the physician documented the patient as HIV infected. For AIDS case reports, areas should enter the patient's residence at the time the first AIDS defining clinical condition or the date of the first immunologic marker that reaches the AIDS-defining thresholds. Residence assignment can be problematic for Hispanic or Latino migrants as they may have multiple residences (e.g., binational cases), or may be institutionalized in correctional facilities (ICE detention centers) and are foreign to the United States. For Hispanics or Latinos diagnosed with HIV infection in 2009 in the border states, completeness of "Residency at diagnosis" varied from 93.7% - 100%. HIV surveillance requires that 100% of cases have a residency at diagnosis.

HIV Transmission Category: Summarizes the multiple risk factors that an individual may have had by selecting the one through which HIV was most likely to have been transmitted. Cases are assigned a single transmission category based on a hierarchy. Persons with more than one reported risk factor for HIV infection are classified in the transmission category listed first in the hierarchy – exception MSM/IDU. Heterosexual contact (HC) refers to heterosexual contact with a person known to have or to be at high risk for, HIV infection. For Hispanics or Latinos diagnosed with HIV in 2009 in the border states, completeness of HIV Transmission Category varied from 71.7% - 86.9% . HIV surveillance

data quality standard requires that at least 85% of cases have a known HIV Transmission Category at 12 months after initial report.

CD4 count/percent after initial HIV diagnosis: At least 50% of persons newly diagnosed with HIV infection aged > 13 years, should have an initial CD4 count or percentage (i.e., CD4 specimen collected within 3 months following a diagnosis of HIV infection) reported to the national HIV surveillance system no later than 12 months following diagnosis. This variable is used for HIV disease staging and as a proxy indicator for access to care. For Hispanics or Latinos aged > 13 years and diagnosed with HIV in 2009 in three border states, completeness of CD4 count/percent after initial HIV diagnosis varied from 48.7% - 73.7%.



Part B:

# Improving HIV Prevention Intervention Efforts



## Introduction

The National HIV/AIDS Strategy for the United States (NHAS) has three primary goals: to reduce HIV incidence; increase access to care and optimize health outcomes; and reduce HIV-related health disparities.<sup>1</sup> The Federal Implementation Plan for NHAS lists specific activities that federal agencies, including the Centers for Disease Control and Prevention (CDC), should conduct to achieve these goals. To prevent HIV among Hispanics or Latinos, the Plan requires CDC to release a report on suggestions for improving HIV prevention intervention efforts among Hispanic or Latino migrant communities residing in United States / Mexico Border States, i.e., Arizona, California, New Mexico, and Texas. This report provides suggestions to improve HIV prevention and summarizes the activities and findings that guided their development. The report utilizes the United States Census Bureau definition of Hispanic or Latino – “those people who classified themselves in one of the specific Spanish, Hispanic, or Latino categories listed on the Census 2010 questionnaire - “Mexican, Mexican Am., Chicano,” “Puerto Rican,” or “Cuban” -as well as those who indicate that they are “other Spanish/Hispanic or Latino.”<sup>2</sup> - and the United States Department of Homeland Security (DHS) definition of migrant, “a person who leaves his/ her country of origin to seek residence in another country, and “immigrant” as any alien in the United States, except one legally admitted under “specific nonimmigrant categories.”<sup>3</sup>

## Background

The 2010 United States Census Bureau Report states that an estimated 39.3 million foreign-born residents (13% of the total population) are living in the United States and almost half are Hispanics or Latinos.<sup>4</sup> States that share the border with Mexico, i.e., Arizona, California, New Mexico

and Texas, referred to as border states (as defined in Part A), have higher numbers of Hispanic or Latino residents than other states California and Texas have the largest numbers with 14 and 9.5 million, respectively.

### ***The Epidemiology of HIV among Hispanics or Latinos in the United States***

Part A provides a detailed summary of the epidemiology of HIV among Hispanics or Latinos. This section will highlight disparities. Hispanic or Latinos with HIV have poorer outcomes than whites at every stage of testing and treatment.<sup>5,6</sup> Further, recent CDC data suggest that significant regional differences exist in rates of and transmission risk for HIV infection among Hispanics or Latinos.<sup>7</sup> Specifically, Hispanics or Latinos living in the Northeast have the highest rates of HIV diagnoses, are more likely to be born in Puerto Rico, and are more likely to be infected through injection drug use.<sup>7</sup> Conversely, Hispanics or Latinos living in the South have the highest number of new diagnoses, are more likely to be born in Central America and Mexico, and are more likely to become infected through male-to-male contact.<sup>7</sup> Therefore, HIV prevention programs should be tailored to the diverse needs of Hispanics or Latinos communities.

### ***HIV Risk Behavior in Migrant Populations***

The regional dynamics along the United States-Mexico border, i.e., drug and sex trade, high cross-border mobility, and tourism, coupled with the contextual and social environment of the migratory labor system may facilitate the spread of HIV.<sup>8,9,10,11</sup> The available literature suggests that migrant labor occurs in a system that is characterized by low paying and often exploitative jobs that lead to extended periods away from home.<sup>11</sup> Additionally, migrant populations often have low educational attainment and literacy rates, limited English proficiency, and low access to health care.<sup>11</sup> These factors may

facilitate behaviors that increase HIV risk among migrants including multiple partnerships, transactional sex, male to male sexual contact, sex with injection drug using partners, and alcohol and drug use.<sup>11</sup> Additionally, significant socioeconomic disparities exist among Hispanic or Latino populations in the border states including living below the poverty level, being less than 25 years of age, and having higher rates of uninsured persons.<sup>8</sup> Collectively, these factors may directly or indirectly contribute to the risk of HIV transmission among Hispanic or Latino populations living in border states.

## Methods

A literature review was conducted to inform recommendations for this report. The purpose of the review was to identify existing models, practices, and HIV prevention interventions for Hispanic or Latino migrant populations in border states. The final report with suggestions based on the literature review was shared with AIDS Directors for the border states to solicit their review and feedback.

### Results from Literature Review

Establishing a comprehensive model of intervention that integrates the educational, health, and social needs of migrant workers in border states is both complex and challenging. The available literature<sup>12-16</sup> suggests that HIV prevention providers who work with these populations are increasingly moving towards programs that integrate the provisions of HIV prevention services through culturally and linguistically appropriate practices and programs.

A literature review of studies published between 1988 and 2012 focusing on HIV/STD prevention for Hispanic or Latino migrant populations in border states yielded the following four HIV behavioral interventions targeting migrant farm

workers: a randomized controlled trial evaluating the efficacy of a photo story book and radio story book on HIV knowledge and behaviors among young men;<sup>12,13</sup> a pre-post evaluation of a theater-based health education program on HIV knowledge among adolescent men and women;<sup>14</sup> a pilot pre-post study to assess the efficacy of a 3-session HIV prevention intervention on condom knowledge and behaviors among men;<sup>15</sup> and a pre-post intervention designed to influence HIV knowledge and behaviors among MSM through training and utilization of young promotores.<sup>16</sup> A detailed discussion of these interventions follows.

*Tres Hombres sin Fronteras* (Three Men without Borders), was a seminal HIV prevention education program that used fotonovelas (photo story book) and radionovela (radio story book) to educate Latino farmworkers about HIV prevention. Participants were recruited from a local health clinic and randomly assigned to experimental or control groups. Experimental group participants received the fotonovela at the end of a pretest (during which HIV knowledge, attitudes, and behaviors were assessed) and a broadcast via radio of the radionovela over a three-week period. A total of 89 men completed the post-test assessment (immediately post-completion of the intervention). The sample consisted of single, young Mexican men (mean age of 24 years) living in California. At post-test, significantly more men in the experimental group demonstrated an increase in knowledge about HIV transmission and prevention, increase in attitudes/beliefs regarding their ability to protect themselves against HIV, and more positives attitudes about condom use with sex workers. Additionally, significantly more men in the experimental group reported condom use with a sex worker.<sup>12</sup> More recently, Mischra and Conner (2004) replicated their study and incorporated

discussions after viewing the fotonovelas. Similar results were found in the latter study, such that the experimental groups reported greater increases in HIV knowledge and substantially larger increases in condom use during sex with sex workers.<sup>13</sup>

The *Informate* program, a health education program developed to disseminate HIV and other health-related information to Mexican migrant farmworkers in Michigan, utilized theater performances to address topics such as HIV educational information, HIV testing, condom use, and living with HIV. Data were collected from select audience members who attended seven theater performances held at farmworker labor camps. A total of 71 participants completed the survey (59% female); a majority was between 13 and 24 years old. Immediately post-intervention, participants reported significantly greater knowledge of HIV transmission and risk.<sup>14</sup>

The third intervention study identified in the literature review was an exploratory study of HIV prevention with Mexican migrant day laborers. It included a three-session HIV prevention group that met at mutually convenient times over the span of a week. The sessions focused on enhancing group cohesion, providing condom use demonstrations, identifying personal risks and reducing HIV risks. Group participants were 12 men who met for a 4-week post-intervention evaluation. Pilot data indicated enhanced perceptions of and increased skills in reducing HIV risk among session attendees.<sup>15</sup>

The final intervention identified in the literature review was *Young Latino Promotores*. This intervention was developed to address the needs of young, Latino MSM, and included components of the original *Popular Opinion Leader* intervention and concepts from the

*promotores de salud* (community health worker) model.<sup>17, 18</sup> The intervention was implemented over a 2 year period by community-based organizations in California and Texas. It utilized a convenience sample of young, Latino promotores (YLPs) who received training on HIV knowledge and transmission risks. These promotores were then asked to reach out to a minimum of 15 peers per month to share their knowledge. Thirty-seven YLPs were trained and they averaged 22 contacts per month, for a total of 2,376 educational contacts over the intervention period. Preliminary findings indicated a significant increase in the accuracy of respondent's knowledge about modes of HIV transmission. There was also a significant increase in respondents reporting using condoms for anal sex when the participant was the receptive partner as well as a significant increase in giving and receiving oral sex compared to anal sex which is more risky.<sup>16</sup>

The literature review also provided evidence supporting the use of promotores as a valuable part of a health care team who can link migrant workers in need of HIV care with health care providers.<sup>18,19</sup> Because promotores are viewed by their community members as natural leaders, they can reliably connect, and influence individuals in their networks.<sup>18</sup> With regard to migrant care, promotores have been used to bridge the gap between patients and providers by facilitating a natural link between mainstream medical care and the more culturally-based health care practices of the migrant worker's community, and to deliver provisions of HIV prevention services to recent Hispanic or Latino immigrants who are less acculturated.<sup>19,20</sup>

The Health Resources and Services Administration (HRSA) has funded demonstration projects that utilize *promotores*

through their Special Projects of National Significance (SPNS) Branch in an effort to identify people that are HIV infected and refer them to primary care in the early stages of disease. For example, one-to-one interventions include use of promotores who conduct outreach to migrant farm workers in the workplace, at truck stops and border crossings where commuters wait in lines of traffic for periods of time, and to Latinas at events such as house parties.<sup>21,22</sup> HRSA has also funded programs that utilize promotores to develop curricula for a train-the-trainer program.<sup>23</sup> These projects demonstrated success in creating innovative, culturally-congruent case management models that incorporate cultural health-care beliefs and the use of peer advocates to link individuals in need of HIV care with health care providers.<sup>22</sup>

### **Current Prevention Efforts for Hispanics or Latinos**

CDC's HIV prevention activities for Hispanics or Latinos are as diverse as the community and are achieved through a High Impact Prevention approach - using scalable, cost-effective interventions with demonstrated potential to reduce new infections, in the right populations, to yield a major impact on the epidemic. This approach is essential to achieving the goals of NHAS. Specific activities include increasing the uptake of testing and early diagnosis, improving linkage to and retention in care, and providing prevention services to HIV-infected persons and those at increased risk for infections. These activities are implemented by community-based organizations (CBOs) and state, territorial and local health departments through multiple CDC's funding opportunities focused on Latinos. See Appendix 1 for specifics.

## **Suggestions**

### ***Suggestions to improve HIV prevention among Hispanic or Latino migrant populations along the United States/Mexico border follow.***

1. Identify the specific structural, environmental, cultural, and sexual contexts along the United States-Mexico border region that facilitate HIV risk behaviors among migrants in order to inform the development of prevention interventions.
2. Identify the most efficacious and cost-effective HIV prevention strategies for the considerable diversity among migrants, especially those at highest risk, such as gay and bisexual men, injection drug users, and migrants of varying socioeconomic and educational backgrounds and transnational experiences.
3. Implement and evaluate HIV prevention interventions that are evidence-based, scalable, culturally and linguistically appropriate, address issues of literacy and stigmatization and include strategies for reducing the social and structural barriers to accessing health care services and information.
4. Enhance collaboration with and between health care providers, consulates of Mexico and other countries in Central and South America, local or state health departments, community based organizations (CBO), faith-based organizations (FBO), immigrant rights organizations, and AIDS services organizations (ASO) that provide services to Hispanic or Latino migrant populations living in Border States.

5. Identify points in the HIV care continuum to focus prevention efforts that will achieve the greatest impact in reducing new HIV infections among Hispanic or Latino migrant populations in Border States.

## Contributors

### **CDC staff involved in preparing this report:**

Dr. Donna Hubbard McCree, Dr. Mahnaz Charania, Mr. Emilio German, Office of Health Equity; and Dr. Thomas Painter, Prevention Research Branch, Division of HIV/AIDS Prevention, Centers for Disease Control and Prevention.

**Acknowledgement:** We acknowledge contributions from authors of the CDC Surveillance Report – Dr. Pollyanna Chavez, Dr. Angela Hernandez, and Dr. Eduardo Valverde, Division of HIV/AIDS Prevention and Dr. Alfonso Rodriguez Lainz, Division of Global Migration and Quarantine, Centers for Disease Control and Prevention; and Dr. Diana Travieso Palow, HIV/AIDS Bureau, Division of Training and Technical Assistance, Health Resources and Services Administration. We also acknowledge the review and feedback of the AIDS Directors for the Boarder States - Mr. Andrew Gans, New Mexico Department of Health; Dr. Ann Robbins, Texas Department of Health; Dr. Karen Mark, California Department of Health; Mr. John Saper, Arizona Department of Health; representatives from the National Alliance of State and Territorial AIDS Directors (NASTAD), Mr. Francisco Ruiz and Ms. Natalie Cramer; and Ms. June Mayfield, CDC Project Officer, NASTAD. Finally, we also thank Dr. Jonathan Mermin, Dr. Amy Lansky, Dr. Norma Harris, Dr. David Purcell, Ms. Janet Cleveland and Dr. Chris Cagle for their review and feedback on the final document.

## References

1. National HIV/AIDS Strategy for the United States. Office of National AIDS Policy Web site. <http://www.whitehouse.gov/files/documents/nhas-implementation.pdf>. Accessed October 25, 2012.
2. Place of Birth of the Foreign-Born - American Community Survey Briefs. U.S. Census Bureau Web site. <http://www.census.gov/prod/2010pubs/acsbr09-15.pdf>. Accessed October 29, 2012.
3. U.S. citizenship and Immigration Services. U.S. Department of Homeland Security Web site. <http://www.uscis.gov/portal/site/uscis/menuitem.eb1d4c2a3e5b9ac89243c6a7543f6d1a/?vgnextoid=b328194d3e88d010VgnVCM10000048f3d6a1RCRD&vgnnextchannel=b328194d3e88d010VgnVCM10000048f3d6a1RCRD>.
4. 4. The Hispanic Population: 2010. U.S. Census Bureau Web site. <http://www.census.gov/prod/cen2010/briefs/c2010br-04.pdf>. Accessed October 29, 2012.
5. Centers for Disease Control and Prevention. HIV Surveillance Report, 2010. U.S. Centers for Disease Control and Prevention Web site. [http://www.cdc.gov/hiv/surveillance/resources/reports/2010supp\\_vol17no3/](http://www.cdc.gov/hiv/surveillance/resources/reports/2010supp_vol17no3/). Accessed October 29, 2012.
6. Hall HI, Frazier EL, Rhodes P, Holtgrave DR, Furlow-Parmley C, Tang T, Gray KM, Cohen SM, Mermin J, Skarbinski J. Differences in Human Immunodeficiency Virus Care and Treatment Among Subpopulations in the United States. *JAMA Intern Med*. 2013 Jun 17:1-7. doi: 10.1001/jamainternmed.2013.6841. [Epub ahead of print]
7. Centers for Disease Control and Prevention (CDC). "Geographic Differences in HIV

- Infection Among Hispanics or Latinos  
—46 States and Puerto Rico, 2010" *MMWR  
Morbidity and Mortality Weekly Report*; Vol. 61 /  
No. 40, October 2012 (806-810), On-line: [http://  
www.cdc.gov/mmwr/pdf/wk/mm6140.pdf](http://www.cdc.gov/mmwr/pdf/wk/mm6140.pdf)
8. Border Region. United States Mexico Border Health Commission Web site. [http://www.borderhealth.org/border\\_region.php](http://www.borderhealth.org/border_region.php).
  9. National Alliance for State and Territorial AIDS Directors. *HIV/AIDS en la Frontera: U.S. Mexico Border Epidemiologic Profile, Volume I*. [Online] 03 2009. [Cited: 11 10, 2011.] [http://www.nastad.org/Docs/Public/InFocus/200951\\_NASTAD\\_Border\\_Vol1\\_alpha.pdf](http://www.nastad.org/Docs/Public/InFocus/200951_NASTAD_Border_Vol1_alpha.pdf)
  10. W, Kandel. Profile of Hired Farmworkers, A 2008 Update. s.l. : *Economic Research Report No. 60*, Economic Research Service, U.S. Department of Agriculture, June 2008.
  11. Organista KC, Carrillo H, Ayala G. HIV Prevention with Mexican Migrants: Review, Critique, and Recommendations. *Journal of Acquired Immune Deficiency Syndromes*. 2004; 37: 227-239.
  12. Mischra, SI., Conner, RF. Evaluation of an HIV prevention program among Latino farmworkers. In: Mischra, SI, Conner, RF, Magana, JR (Eds.). *AIDS crossing borders: the spread of HIV among migrant Latinos*. Boulder, CO: 1996; 157-181.
  13. Mischra, SI., Conner, RF. Collaborative research toward HIV prevention among migrant farmworkers. In: Bowser BP, Mischra, SI, Reback, CJ, Lemp GF (Eds.). *Preventing AIDS: community-science collaborations*. New York: 2004; 69-95.
  14. Hovey, JD., Booker, V., Seligman, LD. Using theatrical presentations as a means of disseminating knowledge of HIV/AIDS risk factors to migrant farmworkers: An evaluation of the effectiveness of the Informate program. *Journal of Immigrant Health*. 2006; 9:147-156.
  15. Organista, KC., Alvarado, NJ., Balblutin-Burnham, A., Worby, P., Martinex, SR. An exploratory study of HIV prevention with Mexican/Latino Migrant Day Laborers. *Journal of HIV/AIDS and Social Services*. 2006; 5(2): 89-114.
  16. Somerville, GG., Diaz, S., Davis, S., Coleman, KD., Taveras, S. Adapting the popular opinion leader intervention for Latino young migrant men who have sex with men. *AIDS Education and Prevention*, 2006; 18(supp A): 137-148.
  17. Kelly, JA., St. Lawrence, JS., Stevenson, LY., Hauth, AC., Kalichman, SC., Murphy, DA. et al. Community AIDS/HIV risk reduction: The effects of endorsements by popular people in three cities. *American Journal of Public Health*. 1992; 82: 1483-1489.
  18. Definition of Promotores de Salud. Department of Health and Human Services Web site. <http://minorityhealth.hhs.gov/templates/content.aspx?lvl=2&lvlid=207&ID=8930>. Accessed October 29, 2012.
  19. Ramos, RL., Hernandez, A., Ferriera-Pinto, JB., Ortiz, M., Somerville, GG. Promovision: Designing a capacity-building program to strengthen and expand the role of promotores in HIV prevention. *Health Promotion Practice*. 2006; 7(4): 444-449.
  20. Stasiak, D. Culture-care theory with Mexican-Americans in an urban context. In M. Leininger (Ed.), *Culture care diversity and universality: A theory of nursing* (pp. 79-203). New York: National League of Nursing Press. 1991.
  21. U.S. Department of Health and Human Services. *SPNS: Special Projects of National Significance - Border Health Initiatives*, 2004.

22. Eldred, L., Cheever, L., Parham-Hopson, D. Accessing care for U.S-Mexico border populations living with HIV/AIDS. *Journal of HIV/AIDS & Social Services*. 2006; 5(2): 7-13.
23. Williams, DM. La promotora: Linking disenfranchised residents along the border to the U.S. health care system. *Health Affairs*. 2001; 20(3): 212-218.

## Appendices

### Appendix 1 HIV Prevention Efforts for Hispanics or Latinos

#### HIV Prevention Programs

- In 2011, the CDC's Prevention Program Branch (PPB) awarded \$55 million over five years to 34 Community-Based Organizations ([PS11-1113](#)) to expand HIV prevention services for transgender youth of color, young gay and bisexual men of color, and their partners—18 CBOs (55%) provide services for Hispanic or Latino MSM. Awards are designed to enable CBOs with strong links to these populations to meet their specific HIV prevention needs. Category A focuses on HIV prevention services for high risk YMSM of color and their partners regardless of age, gender, and race/ethnicity. Category B focuses on HIV prevention services for high risk YTG persons of color and their partners regardless of age, gender, and race/ethnicity.
- In 2012, under [PS12-1201 Comprehensive HIV Prevention Programs for Health Departments](#), CDC awarded \$339 million to health departments in all 50 states, eight U.S. territories, the District of Columbia, and eight cities with heavy HIV burdens. This funding embodies CDC's commitment to High-Impact Prevention—using combinations of scientifically proven, cost-effective, and scalable interventions targeted to the most affected populations and regions

to yield a major impact on the HIV epidemic. High-Impact Prevention is essential to achieving the HIV prevention goals of the National HIV/AIDS Strategy.

**Supported Activities ([PS12-1201](#))** were awarded in the following three categories:

1. Core Prevention Programs (\$284 million)—all health departments received funding to conduct essential HIV prevention activities;
2. Expanded HIV testing for disproportionately affected populations (\$54.8 million)—34 jurisdictions with large numbers of African Americans/blacks, Hispanics or Latinos, men who have sex with men, and injection drug users living with HIV received additional funding to provide HIV testing services for these populations and for others at high risk for HIV infection; and
3. Implementation of innovative demonstration projects that could lead to effective new HIV prevention strategies.

CDC's [Technical Assistance for Health Departments under PS12-1201](#)—provides extensive technical support in collaboration with numerous capacity building assistance providers including the [National Alliance of State and Territorial AIDS Directors \(NASTAD\)](#) and the [Urban Coalition for HIV/AIDS Prevention Services \(UCHAPS\)](#). CDC will provide technical assistance, support, and training in the following areas:

- HIV testing – Training on testing and counseling strategies for program managers, train-the-trainer courses for instructors, web-based training modules for non-clinical HIV testing programs;

- Comprehensive prevention with HIV-positive individuals – Training courses on linkage to care, retention in treatment, behavioral interventions, and risk-reduction services for facilitators, trainers, instructors, and clinicians, best practices and other resource materials;
- Condom distribution – Toolkit including examples of effective condom distribution services;
- Policy initiatives – Training on policy initiatives and structural interventions;
- Evidence-based interventions for high-risk populations – Courses for facilitators and trainers on individual, group, and community-level interventions to reduce risk behaviors;
- Social marketing, media, and mobilization – Training and technical assistance for campaign development and evaluation; and
- Program planning – Technical assistance in the development of comprehensive monitoring, evaluation, and quality assurance plans. Additional information is available at <http://www.cdc.gov/hiv/topics/funding/PS12-1201/capacitybuilding.htm>
- HIV Prevention Projects for Community-Based Organizations (CBOs)— PS10-1003—supports the development and implementation of effective community-based HIV prevention programs that reflect local prevention priorities and serve persons at high risk for acquiring or transmitting HIV; promote collaboration and coordination of HIV prevention efforts among CBOs, health departments, and private agencies; and build the capacity of CDC-funded CBOs delivering selected behavioral interventions or HIV Counseling, Testing, and Referral (CTR) services to persons at high risk for acquiring or transmitting HIV—30 of 133

funded CBOs (23%) provide services for Hispanics or Latinos.

### Capacity Building Assistance

- CBA Announcement PS09-906—29 Capacity Building Assistance (CBA) organizations are funded under this 4.5-year \$110 million cooperative agreement to assist in building the capacity of directly and indirectly funded grantees, including individuals, agencies, health departments, and communities, in the delivery and effectiveness of evidence-based interventions and core public health strategies to implement culturally appropriate HIV prevention.
  - The Program requires Capacity-Building Assistance (CBA) providers to provide CBA services that are culturally and linguistically appropriate across all racial and ethnic groups for state and local health department and directly-funded community-based organizations. Some funded- providers are allowed to target CBA services to specific high-risk and targeted populations. Approximately 60% of DHAP's funded CBA providers address the specific needs of Hispanic or Latino populations.
  - Under Category B, 6 of 15 organizations are funded to provide CBA services to Latinos/Latinas; 5 of 15 specifically target Latino MSM and transgender individuals; strengthening community access to, and/or utilization of HIV prevention services.
  - CBA Supplement: PS09-90601SUPP10—\$1.4 million supplement to support NGOs in enhancing their current CBA services, as funded under FOA PS09-906, for CBOs including faith-based organizations directly and indirectly funded by CDC,

and other community stakeholders providing HIV prevention services targeting African American and Latino gay, bisexual, and other MSM.

- CBA for Health Department Supplement PS09-90602011SUPP11—approximately \$518,000 was provided for funding to strengthen organizational infrastructure interventions, strategies, community, planning and monitoring evaluation for HIV prevention services targeting high risk and/or racial/ethnic minority populations.

### **Diffusion of Effective Behavioral Interventions (DEBIs) that support High Impact Prevention**

- CDC supports the national dissemination of Diffusion of Effective Behavioral Interventions (DEBIs) projects that have been translated into Spanish to offer prevention providers linguistically and culturally appropriate interventions that better address the needs of Hispanic or Latino populations.
  - POL—Popular Opinion Leader—community-level intervention involves identifying, enlisting, and training key opinion leaders to encourage safer sexual norms and behaviors within their social networks through risk-reduction conversations.
  - PROMISE—Peers Reaching Out and Modeling Intervention Strategies—a community-level intervention is based on several behavior change theories.
  - RESPECT—designed to support risk reduction behaviors by increasing the client's perception of his/her personal risks and by emphasizing incremental risk-reduction strategies.

- Healthy Relationships—a five-session, small-group intervention for men and women living with HIV/AIDS. It is based on Social Cognitive Theory and focuses on developing skills and building self-efficacy and positive expectations about new behaviors through modeling behaviors and practicing new skills.
- VOICES/VOCES—Video Opportunities for Innovative Condom Education & Safer Sex—a group-level, single-session video-based intervention designed to increase condom use among heterosexual African American and Latino men and women who visit STD clinics.
- Connect—a six session, relationship-based intervention that teaches couples techniques and skills to enhance the quality of their relationship, communication, and shared commitment to safer behaviors.
- START—an individual-level, multi-session intervention for people being released from a correctional facility be directly involved in implementing Project START.

### **HIV Prevention Communication**

- The Act Against AIDS initiative consists of several concurrent HIV prevention campaigns focused on raising HIV awareness among all Americans and reducing the risk of infection among the hardest-hit populations—gay and bisexual men, African Americans, Hispanics or Latinos, and other communities at increased risk. Act Against AIDS HIV testing and HIV awareness and anti-stigma bilingual campaigns targeting Hispanics or Latinos are as follows.

- Reasons/Razones campaign reminds Hispanic or Latino gay and bisexual men that there are many reasons for getting an HIV test and that everyone can play a role in stopping the spread of HIV.
- The Let's Stop HIV Together/ Detengamos Juntos el VIH campaign raises awareness about HIV and its impact on the lives of all Americans, and fights stigma by showing that persons with HIV are real people—mothers, fathers, friends, brothers, sisters, sons, daughters, partners, wives, husbands, and co-workers.

### Prevention Research Branch

- The Minority AIDS Initiative Funding for Care and Prevention in the United States (CAPUS) is a three-year demonstration project to reduce HIV/AIDS-related morbidity and mortality among racial /ethnic minorities in the U.S. Under CAPUS, eight states, including six Southern states, were funded a total of approximately \$14.2 million. The primary goals are as follows:
  - Increase the proportion of racial / ethnic minorities with HIV who have diagnosed infection by expanding and improving HIV testing capacity.
  - Optimize linkage to, retention in, and re-engagement with care and prevention services for newly diagnosed and previously diagnosed racial/ethnic minorities with HIV
  - Address social, economic, clinical, and structural factors influencing HIV health outcomes
- The Enhanced Comprehensive HIV Prevention Planning (ECHPPP) Project is a 3-year demonstration project funded by the Division

of HIV/AIDS Prevention (DHAP) for the 12 municipalities with the highest number of people living with AIDS in the United States.

- ECHHP is part of the response to the National HIV/AIDS Strategy (NHAS), and it supports the 12 Cities Project which is directed by the Department of Health and Human Services (HHS) and directly supports NHAS goals by improving program planning and implementation to:
  1. Reduce new HIV infections;
  2. Link people with HIV to care and treatment and improve health outcomes; and
  3. Reduce HIV-related health disparities.

### Epidemiology Branch

Under The Minority AIDS Research Initiative (MARI), DHAP conducts epidemiologic prevention research in communities of color, specifically Black and Hispanic or Latinos communities. Projects funded under MARI build HIV prevention research capacity in these communities through mentorship of junior investigators and through implementing HIV prevention research. To date, 27 investigators have received funding; 9 targeted Hispanic or Latino communities.

